

BERING SEA COMMUNITY DEVELOPMENT QUOTA (CDQ)
PROGRAM FISHERIES, 1998
REPORT TO THE ALASKA BOARD OF FISHERIES

by

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BERING SEA COMMUNITY DEVELOPMENT QUOTA (CDQ) PROGRAM FISHERIES, 1998

Historic Background

The Magnuson/Stevens Fisheries Act provided for the Community Development Quota (CDQ) Program, which in turn produced the shellfish CDQ fisheries. The North Pacific Fisheries Management Council included Bering Sea crab into the CDQ program in 1995, and those fisheries started in 1998. The State of Alaska manages the overall CDQ program and the Department of Fish and Game manages the specific crab CDQ fisheries.

There are 57 communities along the Bering Sea eligible for the CDQ program. These villages aligned into six CDQ organizations and are collectively referred to as CDQ groups. The groups are Aleutian Pribilof Island Community Development Association (APICDA), Bristol Bay Economic Development Corporation (BBEDC), Central Bering Sea Fishermen's Association (CBSFA), Coastal Villages Regional Fund (CVRF), Norton Sound Economic Development Corporation (NSEDC), and Yukon Delta Fisheries Development Association (YDFDA).

The CDQ groups are non-profit entities and are obligated to optimize the value of their CDQ crab quotas. They submit budgets and comprehensive plans on the intended use of the CDQ funds. These uses vary widely between groups, but mostly are fishing-related investments, scholarships, training, employment services, and other projects which are intended to benefit the region and villages the CDQ group represents. The groups are buying equity in several fishing vessels; vessels which will harvest both CDQ and open access fishery crab.

The CDQ groups have received allocations for 1998-2000 for the following Bering Sea fisheries: Bristol Bay red king crab, Pribilof red and blue king crab, St. Matthew blue king crab, Norton Sound red king crab, Bering Sea *C. opilio* (snow) Tanner crab, and Bering Sea *C. bairdi* Tanner crab (Figure 1). The annual CDQ percentages for crab are phased in over a three-year period (3.5% of the open access fishery harvest for 1998, 5.0% for 1999, and 7.5% for 2000). The individual CDQ group allocation varies in each fishery (Table 1). To be eligible as CDQ crab fisheries, the stocks must have a regularly assessed GHLL and be managed under the Bering Sea Crab Fishery Management Plan (FMP).

1998 Crab CDQ Fisheries

The crab CDQ fisheries started in the spring of 1998. Six CDQ groups participated in the fisheries this year. During 1998 a season total of 20 vessels harvested 9.5 million pounds of Bering Sea snow crab, and red and blue king crab for an exvessel fishery value of \$6.2 million with an average price of \$0.67 per pound (Table 2). Four shorebased¹ processing plants, two shorebased live crab shippers, and one floater-processor operated during the CDQ fisheries. All 1998 CDQ crab fisheries were subsequent to the open access fishery.

¹ Includes docked processing barges.

Community Development Quota groups were required to submit fishery plans to the department prior to each fishery. Plans included names of participating vessels and operators, vessel information regarding safety and communications, intended processor and location, method of attaining but not exceeding the allocation, and if a cooperative effort, the method of dealing with deadloss and/or any overage of allocation.

The CDQ fisheries are conducted under a fisheries management plan (FMP) set forth in 5 AAC 39.690 of the State of Alaska Commercial Shellfish Fishing Regulations. The permit required under the FMP specifies the species to be taken, area open to fishing operations, fishing periods, pot limits, observers, logbooks, registration, reporting of harvest and delivery times, and other requirements as deemed necessary by the department.

All CDQ vessels this year participated in the open access fishery for each species. Before vessels were eligible to register for the CDQ fishery, the offload of crab harvested in the open access fishery must have been completed. The vessel operators were required to obtain an onboard observer, and buoy tags for all gear to be fished. Also, all gear had to be in legal storage unless the vessel commenced CDQ fishing operations prior to the expiration of the pot storage requirements for the just completed open access fishery.

During this inaugural season onboard observers were required throughout all fishing operations. Observers documented fishing practices and obtained biological data during periods outside of the traditional fishery seasons. Additionally, the onboard observers collected data in fisheries where recent at-sea sampling had been minimal. Data obtained from observers deployed during CDQ fisheries indicated no significant difference in fishing strategy by the vessel as compared to the open access fishery.

Bering Sea *Chionoecetes opilio* Tanner Crab CDQ Fishery

The inaugural shellfish Community Development Quota (CDQ) fishery was conducted for Bering Sea *Chionoecetes opilio* Tanner crab, or snow crab, during the Spring of 1998. This fishery was conducted subsequent to the open access fishery. Six CDQ groups participated in this fishery and were allowed to harvest an amount equal to 3.5% of the total open access fishery harvest, or 8.89 million pounds. The amount allocated to each group varied, ranging from 10 to 19% (Table 1).

All vessels in the CDQ fishery also participated in the open access fishery (which closed March 20). The vessels were required to offload all crab caught in the open access fishery, purchase new pot tags and to obtain an observer prior to the commencement of any CDQ fishing.

Initial fleet expectations of a 7 to 10 day fishery, based on performance in the open access fishery, diminished with deteriorating weather conditions in late March. Also, several vessel operators failed to make adequate plans for observers and were delayed a few days while waiting for new observers to complete the training program.

Fishing effort commenced in late March. Deliveries started the second week of April, peaked the week ending April 25 and were all completed by the end of May (Figure 2). Analysis of fish ticket data shows that 20 vessels made 86 deliveries for a total harvest of 8.85 million pounds (Table 3). The participating vessels harvested 99.6% of the overall CDQ allocation. All fishing effort was completed by the end of May.

The overall catch per unit of effort (CPUE) was 174 crabs per pot, and the average weight of retained crabs was 1.3 pounds (Table 3). The open access fishery CPUE was 207 crabs per pot pull and 1.3 pounds was the average weight for retained crabs. The average harvest per vessel in the CDQ fishery was 442 thousand pounds; this compares to 1.1 million pounds for vessels in the open access fishery.

Average exvessel price per pound was \$0.54, which produced a total fishery value of \$4.7 million (Table 2). By comparison, the open access fishery value was \$134.6 million with an average exvessel price per pound of \$0.56.

The weekly harvest, reported by the vessels, ranged from 600 thousand pounds at the beginning and ending of the fishery, to over 1.7 million pounds at the end of April (Figure 2). The CPUE ranged from 212 crabs per pot pull in early April to a low of 146 the second week of May.

Weekly radio reports from observers during the CDQ fishery indicated no significant difference in sorting to size by the vessel crew as compared to the open access fishery. A comparison of onboard observer data from the CDQ fishery with observer and port sampler data from the open access fishery verified there was no significant difference in the average carapace width or average weight of retained crab.

Three shorebased processors participated in this fishery; two in St. Paul and one in Akutan. One floating processor operated in the Pribilof Islands during the fishery.

One vessel fishing for CBSFA exceeded their allocation. Action taken by another group in consort with CBSFA prevented exceeding the overall CDQ allocation for Bering Sea *C. opilio* Tanner crab.

St. Matthew Blue King Crab CDQ Fishery

The 1998 St. Matthew blue king crab CDQ fishery started September 29, with a quota of 99,512 pounds. Five of the CDQ groups participated in this fishery, only CBSFA did not. Two vessels participated in this fishery, one fished for APICDA (50% of the quota) and the other fished in a cooperative effort for BBEDC, CVRF, NSEDC and YDFDA (a total of 50% of the quota). All fishing activity was concluded by October 12.

The two vessels made ten deliveries for a total harvest of 98,918 pounds (Table 3), or 99.4% of the available quota. Total CDQ fishery value was \$164 thousand; the average exvessel price per pound was \$1.67 (Table 2). This compares to \$5.3 million with an average exvessel price of \$1.87 per pound in the open access fishery.

Data obtained from observers showed the CPUE ranged from three to fifteen crabs per pot (Figure 3). Fish ticket data the average was ten crabs per pot pull (Table 3). The open access fishery averaged seven crabs per pot pull. Average weight of crabs caught in the CDQ fishery was 4.3 pounds (Table 3); the average weight of crabs taken in open access fishery was 4.7 pounds. The harvest ranged from 1,407 pounds to 16,475 pounds per day, and averaged 7,066 pounds per day. Each vessel averaged 3,533 pounds per day; this compares to an average of approximately 1,970 pounds per vessel per day during the open access fishery.

The pot limits for this CDQ fishery were set at 200/250 pots depending on vessel size. These limits were used because they are established pot limits in regulation for other Bering Sea fisheries. The pot limits in effect for the open access fishery (60/75 pots) were established to slow the fishery, reduce gear conflicts and reduce gear loss. They were relaxed for the CDQ fishery because pace of the fishery was not an issue and the chance of gear conflict was greatly reduced. Both vessels opted to fish additional pots. One vessel fished 185 pots, while the other fished 105 pots.

The vessel fishing for APICDA exceeded the their allocation by a small amount. Edited fish ticket data shows a total harvest of 49,876 for the group. The harvest total includes deadloss reported by the observer that was not included on the fish ticket or weekly processor report. The overall St. Matthew blue king crab allocation was not exceeded.

Pribilof Red and Blue King Crab CDQ Fishery

The 1998 Pribilof red and blue king crab Community Development Quota (CDQ) fishery was prosecuted during late November, following the Bristol Bay open access fishery. The total allocation for this fishery was 35,958 pounds. This allocation was based on final fish ticket data from the open access fishery and represents an increase of over 1,300 pounds from the original allocation based on processor reports. The opportunity to make this adjustment was due to the delayed start date of the CDQ effort.

The total allocation belonged to the Central Bering Sea Fisherman's Association, which had only one vessel participate in this fishery. The vessel, which registered November 13, commenced fishing on November 16. The vessel made three unique fishing trips, however five landings were recorded. All fishing activity was completed by November 26; the vessel fished on eight of the eleven days (Figure 4). This activity level was somewhat less but similar to the open access fishery where most of those vessels fished nine of the ten days. The final offload, however, did not occur until December 9. This protracted period was a result of all crab going to the live market. The vessel was not able to offload in a timely manner due to small holding facilities onshore and inclement weather (flying) conditions. Offloads occurred in St. Paul initially, and in Dutch Harbor at the end of the season.

Total harvest for the 1998 Pribilof king crab CDQ fishery was 35,703 pounds (Table 2), or 99.3% of the allocation. Red king crab accounted for 33,973 pounds; blue king crab totaled 1,730 pounds (Table 3). There were five red king crab and four blue king crab deliveries. There

was a total of 1.1 million pounds of red and blue king crab, in approximately equal amounts, harvested in the open access fishery.

The CDQ fishery outperformed the open access fishery in average weight of crabs. Average weights of red king crabs in the CDQ fishery was 10.0 pounds (Table 3), compared to 7.5 pounds per crab the observed in earlier fishery. Blue king crab averaged 7.8 and 7.5 in the CDQ and open access fisheries, respectively. The catch per pot pull in both fisheries was six crabs (5.9 in CDQ and 5.8 in open access). The CDQ vessel harvested 35,703 pounds, almost twice the 18,024 pounds per vessel averaged by the open access participants.

The average exvessel price per pound for the CDQ fishery was \$2.90, well above the open access average price of \$2.37 (Table 2). The total fishery value was approximately \$96 thousand; the open access fishery value was \$2.4 million.

The pot limit for this CDQ fishery was set at 200/250 pots depending on vessel size. Justification for the increased pot limit was addressed in the St. Matthew fishery section above. The participating vessel fished with a full compliment of 200 pots.

Bristol Bay Red King Crab CDQ Fishery

The 1998 Bristol Bay red king crab Community Development Quota (CDQ) fishery occurred immediately following the open access fishery. The first vessels registered on November 9 and all vessels entered the fishery by November 14. The total allocation for this fishery, based on preliminary harvest data obtained from inseason processor reports and estimates, was 525,115 pounds. Seven vessels fished for the five CDQ groups eligible to participate in this fishery (Table 1). CBSFA was the only group not to participate in this fishery.

The seven CDQ vessels made 15 deliveries for a harvest of 524,336 pounds (Table 3), or approximately 99.8% of the total allocation. Several deliveries were split with a portion of the load going to live crab markets; the remainder was processed in Akutan or Dutch Harbor. All fishing effort was completed by November 23. In the open access fishery 274 vessels made 284 deliveries for a harvest of 14.2 million pounds.

The CDQ fishery outperformed the open access fishery in average weight of crabs and crabs per pot pull. The average weight of crabs in the CDQ fishery was just over 7.0 pounds (Table 3), compared to 6.8 pounds per crab in the earlier fishery. The catch per pot pull varied from 19 to 32 and averaged over 23 crabs (Figure 5 and Table 3), well above the 15 crabs per pot pull estimated for the open access fishery. Each CDQ vessel averaged 74,905 pounds; significantly exceeding the 50,781 pounds per vessel averaged by the open access participants.

The average exvessel price per pound for the CDQ fishery was \$2.45, well below the open access average price of \$2.60 (Table 2). The total CDQ fishery value was approximately \$1.3 million. The open access fishery value was approximately \$37.4 million.

CDQ vessels fished for an average of 6.7 days, approximately 25% longer than in the open access fishery. Four of the seven vessels made two trips to the fishing grounds; those four vessels averaged eight days of fishing activity in total. The three vessels that made one trip averaged five days of activity, the same as in the open access fishery.

Bering Sea Chionoectes bairdi Tanner Crab CDQ Fishery

No commercial harvest of *C. bairdi* Tanner crab occurred in the Bering Sea, open access or CDQ, during 1998 due to low stock abundance.

Norton Sound Red King Crab CDQ Fishery

No CDQ harvest of red king crab in Norton Sound occurred in 1998. The open access fishery performance was poor, less than 30,000 pounds out of a quota of 80,000 pounds was harvested. Due to concurrent seasons no CDQ effort was attempted.

Table 1. The 1998 crab Community Development Quota (CDQ) Program percent allocation by group.

Fishery	Group ¹					
	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA
Bristol Bay red king	20	20	0	20	20	20
Pribilof red & blue king	0	0	100	0	0	0
St. Matthew blue king	50	12	0	12	14	12
Norton Sound red king	0	0	0	0	50	50
Bering Sea <i>C. opilio</i> Tanner	10	19	19	17	18	17
Bering Sea <i>C. bairdi</i> Tanner	10	19	19	17	18	17

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¹APICDA (Aleutian Pribilof Island Community Development Association).
 BBEDC (Bristol Bay Economic Development Corporation).
 CBSFA (Central Bering Sea Fishermen's Association).
 CVRF (Coastal Villages Region Fund).
 NSEDC (Norton Sound Economic Development Corporation).
 YDFDA (Yukon Delta Fisheries Development Association).

Table 2. The 1998 crab Community Development Quota (CDQ) Program fisheries overview.

Fishery	Vessels	Landings	Harvest	\$/lb.	Value ¹	Group ² (Number of Vessels) ³
Bristol Bay red king	7	15	524,336	\$ 2.45	\$ 1,285,772	51(1); 52(2); 54(1); 55(2); 56(1)
Pribilof red & blue king	1	9	35,703	\$ 2.90	\$ 95,636	53(1)
St. Matthew blue king	2	10	98,918	\$ 1.67	\$ 164,032	51(1); 52, 54, 55, 56(1) ⁴
Norton Sound red king					No Fishery	
Bering Sea <i>C. opilio</i> Tanner	20	86	8,846,977	\$ 0.54	\$ 4,702,643	51(3); 52(3); 53(4); 54(3); 55(4); 56(5)
Bering Sea <i>C. bairdi</i> Tanner					No Fishery	
Totals	20	120	9,505,934	\$ 0.67	\$ 6,248,083	

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¹CDQ group portion estimated at 20 to 30% of fishery value.

²Group 51, APICDA (Aleutian Pribilof Island Community Development Association).

Group 52, BBEDC (Bristol Bay Economic Development Corporation).

Group 53, CBSFA (Central Bering Sea Fishermen's Association).

Group 54, CVRF (Coastal Villages Region Fund).

Group 55, NSEDC (Norton Sound Economic Development Corporation).

Group 56, YDFDA (Yukon Delta Fisheries Development Association).

³Two vessels fished for two different groups during the *C. opilio* Tanner crab fishery.

⁴One vessel fished for BBEDC, CVRF, NSEDC & YDFDA.

Table 3. The 1998 crab Community Development Quota (CDQ) Program fisheries statistics.

Fishery	Number of		Harvest ¹	Deadloss ¹	Number of Pots		CPUE ³	Average Weight ¹
	Vessels	Landings			Registered ²	Pulled ²		
Bristol Bay red king	7	15	524,336	391	1,325	3,326	23	7.0
Pribilof red king	1	5	33,973	2,725	200	624	6	10.0
Pribilof blue king	1	4	1,730	-	200	589	6	7.8
St. Matthew blue king	2	10	98,918	447	290	2,326	10	4.3
Norton Sound red king				No Fishery				
Bering Sea <i>C. opilio</i> Tanner	20	86	8,846,977	134,898	4,016	39,575	174	1.3
Bering Sea <i>C. bairdi</i> Tanner				No Fishery				
Totals	20	120	9,505,934	138,461	5,831	45,851		

¹In Pounds

²Pribilof pot totals, 200 registered and 624 pulled.

³Defined as catch per pot pull.

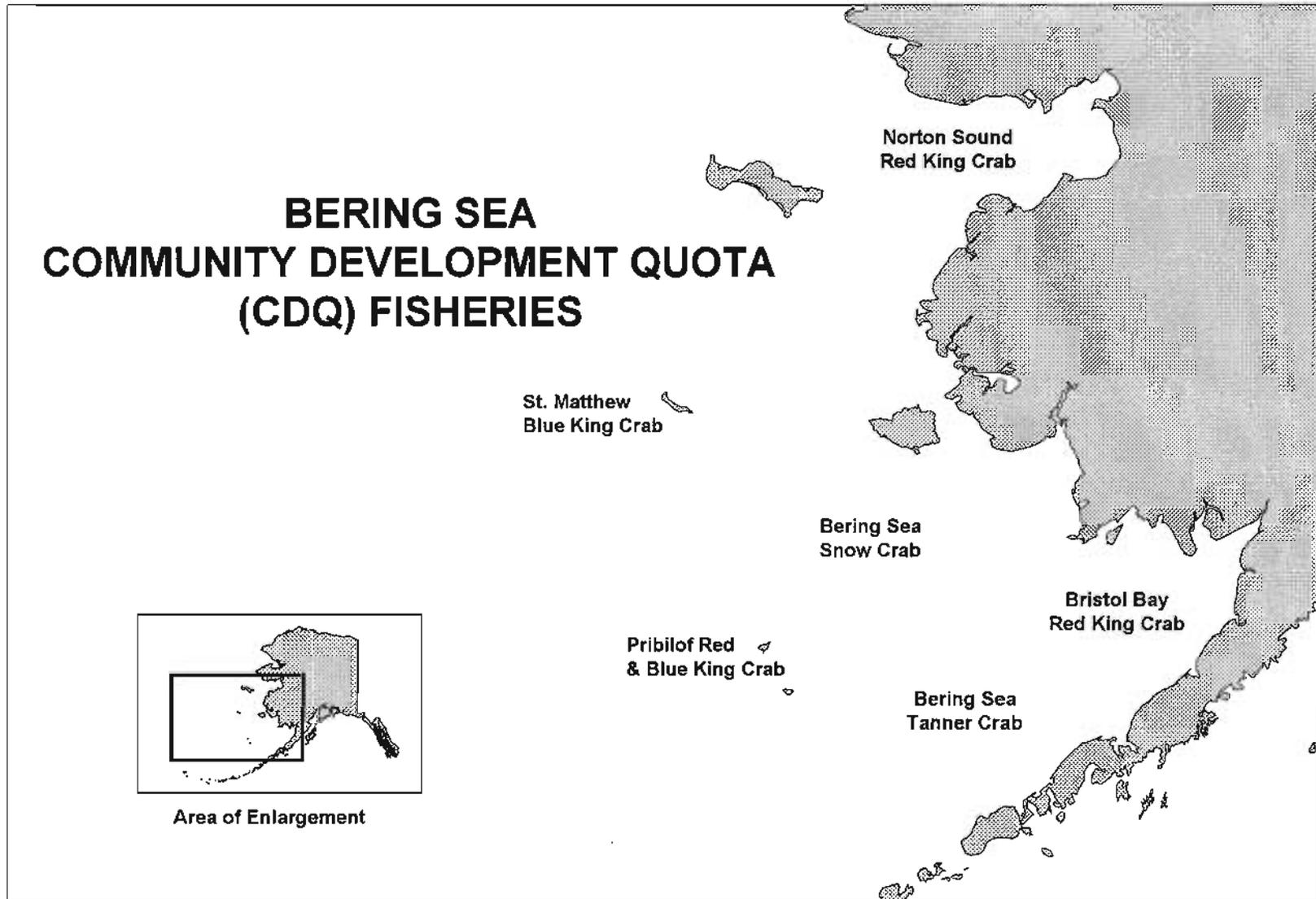


Figure 1. Fisheries of the Bering Sea Community Development Quota (CDQ) Program.

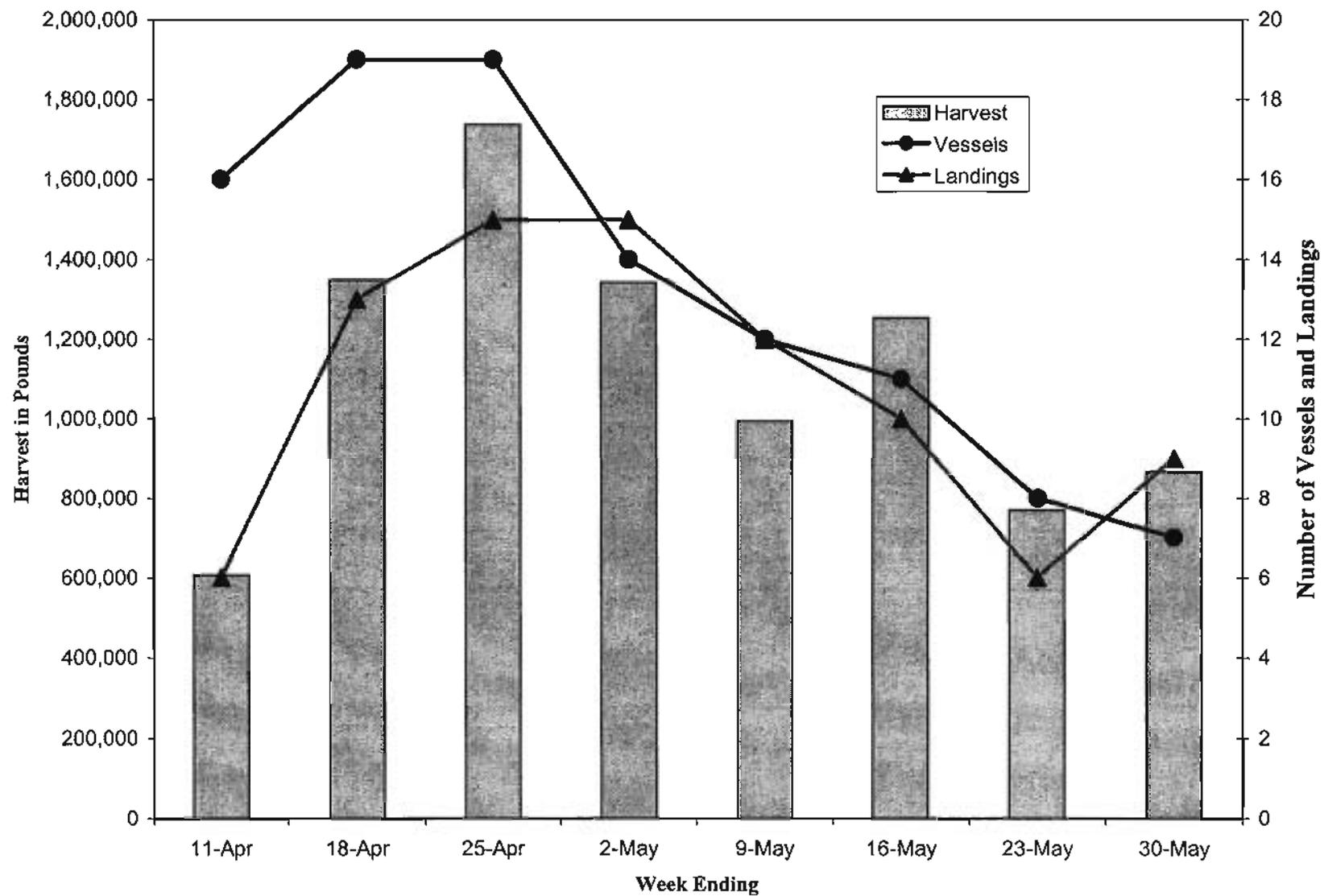


Figure 2. Weekly harvest, landings and vessel effort in the 1998 Bering Sea *Chionoecetes opilio* Tanner crab CDQ fishery.

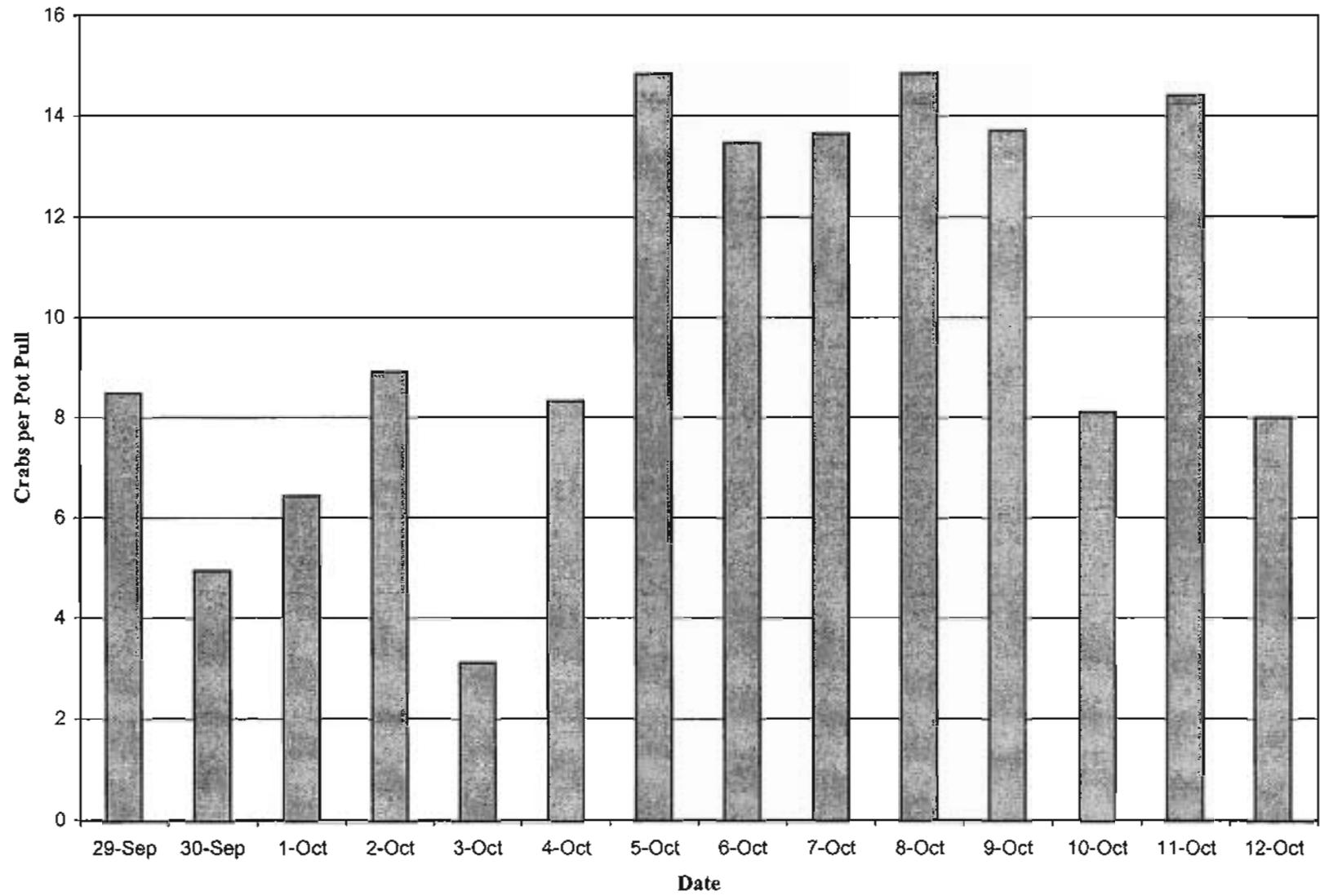


Figure 3. Number of crabs per pot pull by day observed in the 1998 St. Matthew blue king crab CDQ fishery.

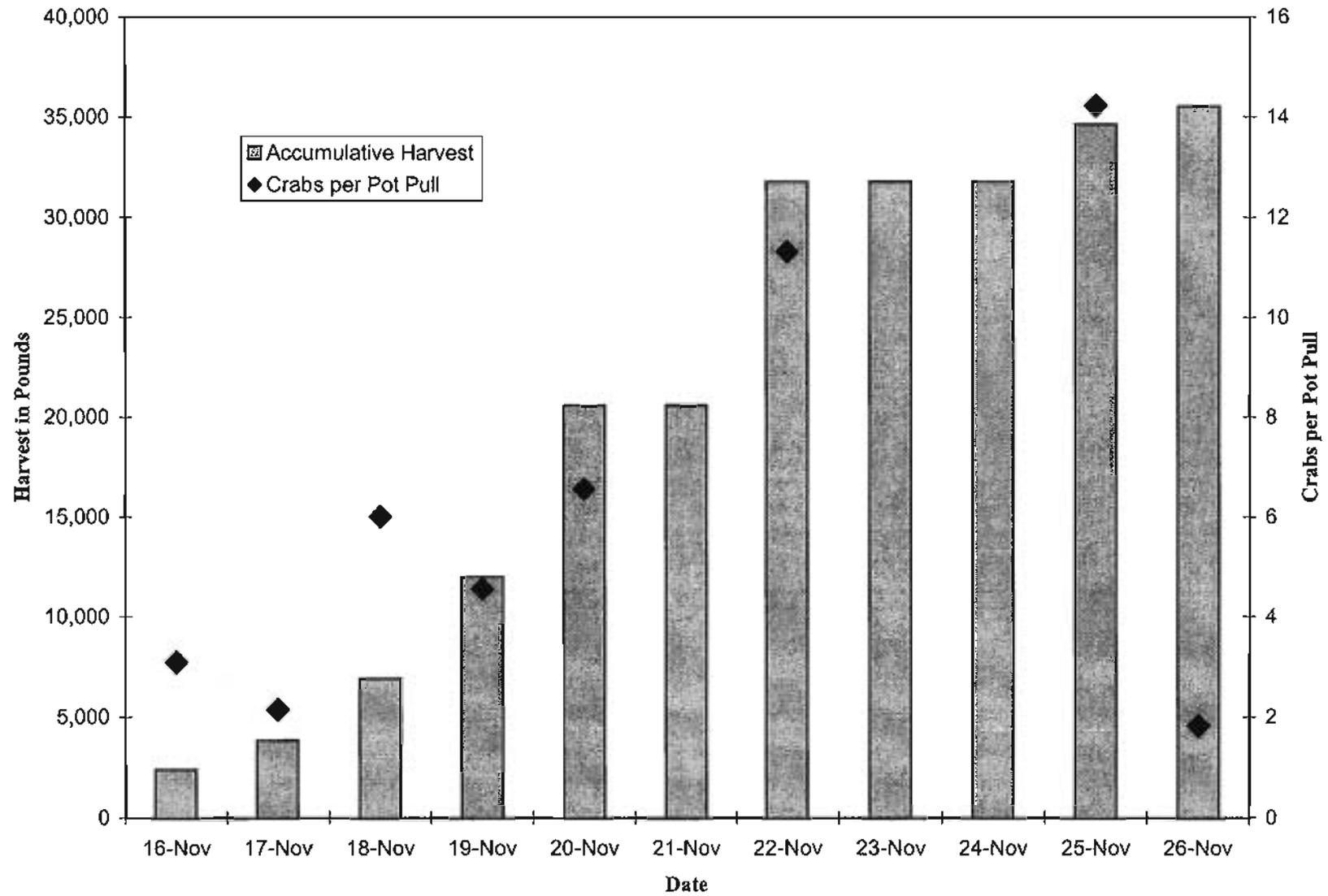


Figure 4. The 1998 Pribilof king crab CDQ fishery accumulative harvest and crabs per pot pull data from observer reports.

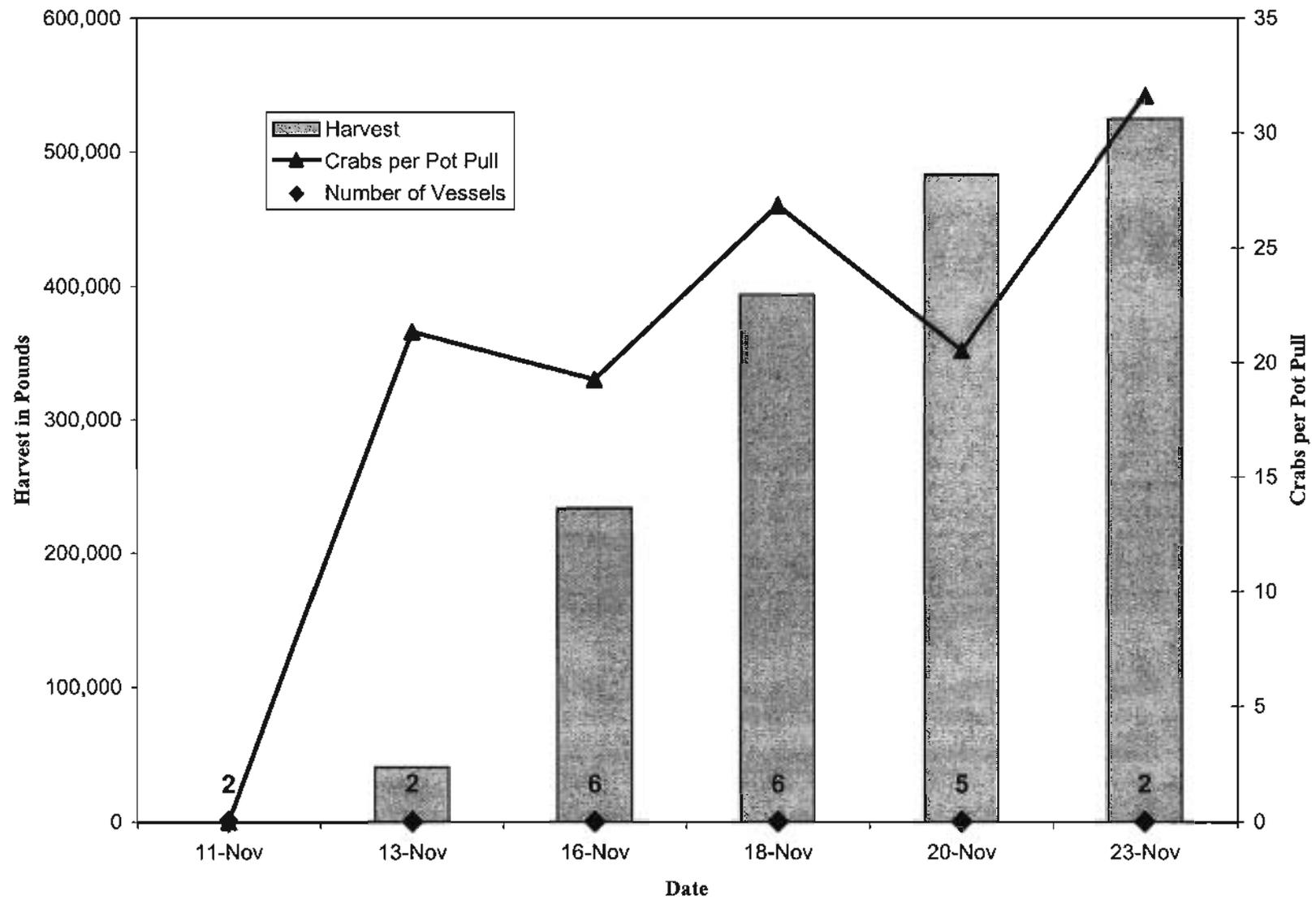


Figure 5. Harvest, vessel effort, and crabs per pot pull from observer data in the 1998 Bristol Bay red king crab CDQ fishery.

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