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HISTORY OF THE STATE OF ALASKA ONBOARD OBSERVER PROGRAM  
1986 - 1995

A REPORT TO THE ALASKA BOARD OF FISHERIES

By

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## HISTORY OF THE STATE OF ALASKA ONBOARD OBSERVER PROGRAM

### *Authorization and Implementation of the Onboard Observer Program*

The Alaska Department of Fish and Game and the crab industry became concerned, in the mid 1980s, over the unregulated nature of catcher processors fishing the Bering Sea and Aleutian Island crab fisheries. At sea processing capabilities enabled catcher processors to remain beyond reach of the department's enforcement capabilities. This was a time when crab stocks were recovering from low population levels of the early 80s. Crab were small with a high percentage of sublegal prerecruits on the grounds.

At the spring 1986 Alaska Board of Fisheries meeting the department presented a report of the 1985 Bristol Bay red king crab fishery detailing the differences in catch rates between catcher processors and catcher vessels. Catcher processors on average harvested 58% more pounds than catcher vessels. Testimony was received from the public and the board then deliberated on a public proposal requiring a department observer onboard catcher processors. The board found that "in particular shellfish fisheries, onboard observers provide the only effective means to enforce regulations that protect the shellfish resource. Catcher processor and floating processor catch statistics have clearly demonstrated that some operators of these vessels have routinely failed to comply with king and Tanner crab size limit regulations. Without onboard observer coverage, sublegal and female crab may be taken and processed immediately, making enforcement of size and sex regulations impossible." The board further found "it necessary to authorize the department to implement onboard observer programs in particular fisheries when the board determined that it (1) is the only practical data-gathering or enforcement mechanism; (2) will not unduly disrupt the fishery; and (3) can be conducted at a reasonable cost. The department was thus given the task of examining fishing statistics of catcher processors versus catcher vessels and presenting the data to the board for review.

The department conducted an analysis was conducted of the 1987 Bristol Bay red king crab fishery comparing fishery statistics of catcher processors versus catcher vessels. Pounds of crab harvested, vessel size, number of pots registered, and area fished were included in the analysis. A synopsis of the analysis indicated that catcher processors caught nearly 2 1/2 times as many pounds of crab as catcher vessels while pulling 38% more pots (Table 1). This great discrepancy in catch is not explainable by vessel length, gear registered, or area fished. The conclusion was that processing of sublegal crab was the probable explanation.

This report was presented to the board at the April 1988 meeting. The board agreed with the department's conclusion that catcher processors were processing large amounts of sublegal crab. Additionally, the board found that onboard observers provide the only effective means of collecting essential biological and management data from catcher processors and floating processors. The board's solution to this problem was to implement the Onboard Observer Program prior to the September 25th opening of the 1988 Bristol Bay red king crab fishery. All vessels that processed blue, brown, or red king crab or bairdi Tanner crab were required to carry an observer. Cost of the program was to be borne by the processors.

Primary goals of the observer program were to monitor fishing and processing activities to determine the legality of retained and processed crab, and to collect biological data essential in management of the crab resource.

Roles of industry, the department, and contractors in the Onboard Observer Program were as follows.

- A. Vessel owners would contract and pay for observers through "third party" contractors.
- B. ADF&G would certify observers with respect to data collection only, monitor observer performance, and verify all data. Specifically, ADF&G would:
  - 1. establish standards (in regulation) for observer conflict of interest,
  - 2. determine certification requirements and certify observers,
  - 3. determine sampling procedures,
  - 4. monitor observer performance,
  - 5. debrief observers when they return from duty, and
  - 6. analyze observer data and prepare reports.
- C. Contractors would be the observers' employer, contracting with vessel owners to supply trained observers to all vessels. Specifically, contractors would:
  - 1. secure contracts directly with the vessel owners or operators,
  - 2. hire observers and provide all administrative functions and responsibilities associated with their employment,
  - 3. train observers to meet certification requirements,
  - 4. provide all logistical support for observers,
  - 5. assign observers to vessels without regard to requests from vessel owner or operators for specific individuals, and
  - 6. provide observer gear.

The department developed guidelines and certification requirements, produced an observer manual, solicited contractor involvement, and conducted observer training sessions in Anchorage, Dutch Harbor, and Seattle. By the start of the 1988 Bristol Bay red king crab fishery the program was on track with observers deployed on 20 catcher processors and 3 floating processors.

### *Board Review and Modification to the Onboard Observer Program*

An analysis of the 1988 Bristol Bay red king crab fishery was presented by the department to board at the spring 1989 board meeting. This analysis compared fishing performance of catcher processors versus catcher vessels. This report provided convincing evidence regarding the effectiveness of the Onboard Observer Program. Catcher processors still outfished catcher vessels, by 34%, however this was explained by catcher processors carrying and pulling 30%.

more pots (Table 2). The department's conclusion was that the presence of Onboard Observers had the desired effect, curtailing processing of sublegal crab.

Also at the 1989 meeting the department presented a proposal to adopt Parts I and II of the ADF&G Observer Manual for Alaska Crab Processors into regulation by reference (5 AAC 39.645). This approach would avoid having to include the entire manual in the Alaska Administrative Code while still providing it with the power of a regulation. The board adopted this proposal.

Conflict of interest of both contractors and observers had become a concern as reports were received regarding inappropriate activities by both groups. The department presented and the board adopted conflict of interest standards into regulation (5 AAC 39.142).

The Alaska Sea Grant Program entered into observer training in 1989, conducting the August training session. Fifty-four observer candidates took the course with forty-four passing and traveling to Dutch Harbor for additional training onboard a department chartered vessel.

### *A Developing Problem in the Onboard Observer Program*

Serious problems in the observer program had become evident by the end of 1989. Eleven observers had been decertified for inappropriate activities. These activities consisted of substance abuse, failure to complete assigned tasks, or fabrication of data. Additionally, some observers had accepted positions as crewmen on vessels immediately after completion of an observer deployment. This had the potential of compromising the confidentiality of observer data. Potential conflict of interest with contractors was also a major department concern. The department received unconfirmed reports of one contractor providing vessels with observers that allowed illegal processing, and of observer payoffs. Also, observers indicated that contractors subtly pressured them into being lenient with vessels .

While it appeared that the basic deterrent to illegal processing still existed there were hints that it was eroding away. Improvements in the program were needed.

The department presented proposals at the March 1990 board meeting to review the Onboard Observer Program, specifically, observer qualification and observer certification and decertification. The board adopted observer qualification standards requiring a B.S. degree in natural sciences or education and experience as approved by the department. Certification standards and grounds for decertification were also adopted and the conflict of interest regulation was expanded.

These new standards were included in a revised manual approved by the board and adopted into regulation by reference (5 AAC 39.645). This revised, second edition, manual was an improvement upon the original. It clarified observer duties, program responsibilities, sampling procedures, and contained an expanded appendix section providing examples of completed forms.

The newly adopted regulations provided the department with a framework for management of the observer program. There were now standards to abide by that were backed up by the power of regulations. This had a very positive effect on the program. Most problem observers either quit or were decertified over the next few years and the new observers proved themselves to be a very professional group, with numerous individuals advancing into positions with the department.

There remained however, the inherent conflict of interest problem with third party contractors. It appeared that some contractors placed the interests of their business above the integrity of the program. Fishing companies could pressure them into providing or excluding a specific observer or a specific type of observer such as a trainee. Additionally, they kept costs down by constantly employing new observers who were paid less than veteran observers. This resulted in a churning of the observer crops with only 36% of the observers remaining active after one year (Table 3).

### *Expansion of the Onboard Observer Program into the Opilio Fishery*

Discussion at the 1990 board meeting included observer coverage for the opilio fishery. This fishery was specifically excluded from coverage when the board implemented the Onboard Observer Program in 1988. The legal opilio size of 3.1 inches is substantially smaller than the market size of 4 inches, therefore processing of sublegal opilio has not been a problem. However, Bering Sea bairdi and opilio stocks have considerable overlap in their ranges (Figures 1&2). The minimum legal size of bairdi is 5.5 inches. Additionally, significant levels of hybrid Tanner crab had been documented (figure 3). This has added confusion to managers and fishermen alike. Once processed, bairdi and opilio are visually unidentifiable, and cooking destroys proteins used in genetic identification testing.

The department presented a report to the board identifying the problem of sublegal bairdi retention in the opilio fishery. This prompted the board to expand coverage of the Onboard Observer Program to include at sea processing of all Tanner crab fisheries (bairdi, opilio, angulatus, & Tanneri).

During the 1991 opilio fishery the department documented high levels of sublegal bairdi retention by catcher vessels. Department samplers found an average illegal rate at Dutch Harbor processors of 6.3%. Catcher processors were also retaining sublegal bairdi and processing them as opilio. This high rate of illegality resulted in the department closing the 1990/91 Bering Sea bairdi fishery six days early to account for the undocumented illegal harvest.

Inclusion of the opilio fishery dramatically expanded the Onboard Observer Program. It was the most valuable shellfish fishery in the state, with a 5 month season in 1991. Observer deployments and deployment time increased 103% and 120% respectively over 1990 levels (Table 4).

This expansion created a need for additional observers due to the high turnover rate. The Alaska Sea Grant Program conducted five training sessions in the fall of 1990 and winter of 1991. Sixty observer candidates were trained, of which 51 subsequently passed the department's exam and practicum in Dutch Harbor.

### *Additional Board Review and Modification to the Onboard Observer Program*

The process of decertifying observers involved taking from them a valuable certificate. This led the Department of Law to recommend that observer certification and decertification standards in the observer manual be clarified and explicitly described, and adopted under their own regulation. At the fall 1991 board meeting the department presented such a proposal. The board adopted this proposal placing in regulation onboard observer certification and decertification standards (5 AAC 39.143).

Statewide shellfish fisheries were again scheduled for board review at the March 1993 meeting. The Onboard Observer Program was running smoothly, but there were still areas of the program that needed improvement. The following department proposals were submitted.

- (1) All at sea shellfish processors must have onboard observer coverage. This was rejected as it would have required observer coverage on Dungeness crab and pot shrimp vessels.
- (2) All shorebased processors to be covered by third party contracted observers. This was rejected since this is a traditional department duty.
- (3) Establish procedures to place certified observers back into trainee status when their performance is substandard. This was adopted and specified in the observer certification and decertification regulation.
- (4) Prohibit persons with a criminal record from entrance into the Onboard Observer Program. This was adopted with stipulations regarding the crime.
- (5) Prohibit participation in the Onboard Observer Program for 12 months following employment as a crewmember on a shellfish vessel. This was adopted.
- (6) Prohibit participation in the Onboard Observer Program for 6 months following employment as office staff by an observer contractor. This was adopted.
- (7) Allow observers access to inspect the catch of vessels delivering to a floating processor the observer is stationed on. This was adopted. However, it did not accomplish the desired goal of providing authority for observers to board the catcher boat. It only authorizes observers to inspect the catch, which is possible from the floating processor.
- (8) Approve a new edition of the shellfish observer manual. This was adopted.

The following public proposals were submitted for board review:

- (1) All catcher vessels fishing crab in the Bering Sea or Aleutian Islands must have 30% observer coverage. This was rejected.

- (2) Use of certified bill of lading procedure in place of observer coverage for boats transporting product to Seattle. This was rejected. It is not possible to track a vessel's activities through a bill of lading.
- (3) Allow 10 day grace periods for 30 and 90 day observer trip limits. This was rejected. The board did not want a grace period. They did, however, add six days to the trainee observer trip limit for a total of 36 days.
- (4) Establish observer debriefing at Saint Paul with department staff and at Anchorage using Observer Training Center personnel. This proposal was rejected. It would result in inefficient use of department staff, there are no FWP personnel stationed at Saint Paul, and it is not appropriate for other agencies to conduct observer debriefings.
- (5) Authorize vessel operators to make debriefing appointments. This was rejected as it is critical that contractors know the plans for their observers.
- (6) Place a department employee at the Pribilof Islands during ongoing fisheries to conduct observer briefings and debriefings. This was rejected for the same reasons as number 4.
- (7) Shellfish observer contractors shall provide the following insurance coverage for employees: employers liability, maritime employers liability, and Alaska workers compensation coverage. This was rejected. Contractors were already required to cover their employees with Alaska workers compensation insurance.

The newly adopted observer manual was printed as a new, third edition. Major improvements were incorporated into the structure and design. Descriptions and instructions were expanded and improved and color plates were added.

### *The North Pacific Fisheries Research Plan*

The National Marine Fisheries Service created their Groundfish Observer Program in 1990. It was structured similar to the department's, with third party contractors providing observers to the groundfish fleet.

The public began suggesting that the department and NMFS study the possibility of combining the two observer programs. The North Pacific Fisheries Management Council discussed this approach at several meetings. The result was creation of the North Pacific Fisheries Research Plan. This plan had numerous objectives, including:

1. a standardized fee structure that assessed all plan fisheries: fisheries included all Bering Sea and Aleutian Island king and Tanner crab, plus all groundfish and halibut harvested in the EEZ off Alaska,

2. reduction in conflict of interest by reducing contractor responsibilities with the agencies assuming responsibility for observer assignments and contractor payments,
3. reduction in observer turnover through mandatory minimum levels of veteran observer deployments,
4. agencies funded through a user fee (1996 ADF&G Onboard Observer Program budget \$500,000: canceled with plan), and
5. substantial cost savings through joint agency administration.

The council authorized implementation of the research plan in 1992. The first interagency meeting occurred later that year. The National Marine Fisheries Service would be the lead agency responsible for most of the administration. This included contracts with vessels, fee setting, billing and collection, payments to contractors, and agency funding (ADF&G & Observer Training Center). The Shellfish Observer Program would remain a separate entity under the research plan with oversight by the council. To the extent possible, the agencies would merge their administration and strive to combine activities such as by cross training agency staff and observers. Numerous meetings were held to work out the details involved in developing the plan and merging the two programs.

It became evident after many meetings that differences between the two programs were too great to combine them into one all encompassing program. In 1994 it was decided that they would remain distinct with each agency managing its own observer program. January 1, 1996 was set as the starting date of the research plan. One year of prefunding would be required to secure necessary startup funds, consequently a 2% fee to be collected by processors was instituted commencing January 1, 1995. While the agencies were working out the plan details, representatives of processors and factory trawlers were mounting opposition to the plan. They felt that the plan cap of 2% was too much to pay, and that the status quo pay as you go system (\$6,000 - \$7,000 per month) was preferable. In April 1995 the council voted to delay implementation of the plan until 1997 in order to continue studying it. In June 1995 a plan was conceived by the Observer Oversight Committee to replace the research plan with a modified pay as you go system incorporating a prime contractor to create an arms length relationship between contractors and vessels. The prime contractor's role would be as an intermediary. Vessels would request and pay for observers through the prime contractor who then subcontracts the deployment to a contractor. This modified plan was discussed in detail at the September 1995 council meeting. The department advised the council at the December 1995 meeting that termination of the research plan would cause the department to withdraw from a joint ADF&G/NMFS observer program. The department would continue with the status quo in its observer program. After testimony and deliberation the council voted to eliminate the research plan and pursue development of the modified pay as you go plan.

### *Adoption of the Scallop Fishery Management Plan*

Scallop fishing effort expanded in 1993 to 15 full time scallop vessels. This expansion is the result of dwindling scallop stocks and a vessel moratorium on the east coast of the United States. Many vessels relocated to Alaska causing concern among fishermen and the department for Alaska's scallop stocks. The scallop fishery had been a low key fishery of few boats for many years.

The commissioner of Fish and Game closed the scallop fishery statewide in May of 1993, declaring it a "high-impact emerging fishery". The commissioner then adopted an interim scallop fishery management plan setting seasons, guideline harvest ranges, and authorized development of crab bycatch levels for the management areas. Mandatory onboard observer coverage was also instituted for all scallop vessels.

The North Pacific Fisheries Management Council met and discussed the emerging scallop fishery. They established a control date of January 20, 1993 in the event of a moratorium. They also set a control date of April 24, 1994 in the event a scallop IFQ or limited access program is implemented.

The board met in the spring of 1994 with the Scallop Fishery Management Plan on the agenda. The plan was adopted with minor changes. Split seasons were combined into one. A new scallop area, Adak, was created by separating it from the Bering Sea area.

### *Expanded Onboard Observer Coverage to Catcher Vessels*

Onboard Observer Program activity peaked in 1991, declined through 1994, and stabilized in 1995 (Table 4). Major reductions or closures in some observed fisheries were partially offset by expansion into other fisheries. Observer coverage expanded into permit fisheries in 1993 with inclusion of all vessels fishing Bering Sea hair crab or snails. Observer coverage was also extended to the scallop fleet in 1993. In 1994 observer coverage further expanded to include all vessels fishing the deepwater permit fisheries (Tanneri, angulatus, and couesi) (Table 5).

The department presented a proposal at the spring 1995 board meeting to expand observer coverage to include catcher vessels fishing king crab in the Adak or Dutch Harbor areas. Performance of the 1994 Adak red king crab fishery led department managers to suspect the stocks had crashed. Reduction of catcher processor participation in these fisheries severely impacted the department's ability to collect data necessary to properly manage them (Tables 6 & 7). The board concluded that the only available means to collect this necessary management information was to adopt the proposal, which they did, mandating observer coverage commencing with the start of the 1995 fisheries.

Observer numbers peaked in 1990 at 115 observers and have been fluctuating downward ever since (Table 3). By July of 1995 observer numbers were at an all time low of 40 observers. This reduction is due to decreased opportunities as fisheries declined, salaries were reduced, and the high percentage of trainee observer participation. Expansion onto catcher vessels fishing Adak

and Dutch Harbor king crab required many more observers. Three training courses were held in late 1995 out of which 43 observer candidates received their observer trainee permits.

### *Remaining Problem with the Onboard Observer Program*

There remains one problem with the Onboard Observer Program; the inherent conflict of interest with the third party contractor system. The existing program structure places observers and contractors in a position of potential compromise. Regulations prohibit industry requests for or against specific observers but in practice are difficult to enforce. Blackballing of observers who collect evidence or gain a reputation as a strict observer is possible. The department has received complaints from observers that contractors have subtly pressured them into being lenient with vessels and have verbally reprimanded them when fishing companies complained about fines.

The observer turnover rate is high (Table 3). Since inception of the program in 1988 only 40% of observers (118 of 295) have remained active for one year. This high observer turnover rate however is a financial benefit to both the contractors and the vessels. Trainee observers are paid less than certified observers, and observer training is now provided free to the contractors by the observer training center. Vessels also avoid some legal problems by employing trainee observers who are often naive or timid and may overlook violations. Additionally, trainee observers make many more mistakes in their legal samples and evidence collection duties than certified observers, resulting in dismissed cases by the Department of Law. Trainee observers have not learned the methods vessels employ to work around them. Churning of the observer corps also results in collection of less data and of a lower quality as trainee observers are not as proficient at data collection as certified observers.

### **CONCLUSION**

The Onboard Observer Program has accomplished its two goals; monitoring fishing and processing activities to determine the legality of retained and processed crab and to collect biological data essential in management of the crab resource.

Monitoring fishing and processing activities curtailed illegal processing and fishing activities by at sea processors. Biological data collection produced a vast amount of data that has proved invaluable in management of the fisheries by the department, and in discussion and creation of regulations by the board.

Table 1. Percent difference in fishing performance comparing catcher processors (N=12) against catch vessels (N=20) with lengths between 130 feet and 170 feet fishing the 1987 Bristol Bay red king crab fishery.

Variable	Catcher Vessel	Catcher Processor	Percent Difference
Pounds Landed	54,844	136,074	148%
Number Pot Lifts	1,013	1,396	38%
Pounds/Pot Lift	54	97	80%
Number Pots Registered	300	398	33%
Pounds/Pots Registered	183	342	87%
Vessel Length	152	155	2%

Table 2. Percent difference in fishing performance comparing catcher processors (N=12) against catch vessels (N=23) with lengths between 130 feet and 170 feet fishing the 1988 Bristol Bay red king crab fishery.

Variable	Catcher Vessel	Catcher Processor	Percent Difference
Pounds Landed	40,131	53,817	34%
Number Pot Lifts	795	1,043	31%
Pounds/Pot Lift	50	52	4%
Number Pots Registered	316	410	30%
Pounds/Pots Registered	127	131	3%
Vessel Length	151	158	5%

Table 3. Mandatory Shellfish Observer Program candidates by exam, including number of candidates, number of candidates passed, percentage of observers active one year after passing exam, number of currently certified observers, and the total number of certified observers at the end of each year.

Year	Number of Exams	Number of Candidates	Number Passed	% Observers Active After One Year	Number Currently Certified	Total # Certified @ Year's End	Number Decertified for	
							inactivity <sup>b</sup>	other <sup>c</sup>
1988	3	105	84	33%	1	81	68	15
1989	1	54	44	41%	3	94	37	4
1990	3	47	29	34%	2	115	25	2
1991	4	64	61	44%	5	97	53	3
1992	2	41	39	64%	13	104	26	0
1993	2	19	19	32%	6	81	12	1
1994	1	6	6	17%	1	83	4	1
1995	3	53	52	23% <sup>a</sup>	42	73	8	2
Totals	19	389	334	40%	73		233	28

<sup>a</sup>Includes only the January 1995 exam; the August and October exams are omitted.

<sup>b</sup>Decertified due to 12 month observer inactivity or trainee permit expiration.

<sup>c</sup>Decertified for non-compliance with Shellfish Observer Program standards.

Table 4. Summary of observer trips, observer months, number of deployed observers, number of active contractors, and number of briefings and debriefings from program inception (first briefing September 20, 1988) through December 31, 1995.

Year	Observer Trips	Deployed Observers	Observer Months	Active Contractors	Total	
					Brief <sup>a</sup>	Debrief <sup>b</sup>
1988	43	28	33.2	6	43	42
1989	127	53	135.2	7	127	123
1990	139	61	160.0	7	142	137
1991	282	105	352.5	6	279	360
1992	223	100	279.2	7	223	312
1993	233	80	216.8	7	234	298
1994	208	74	195.7	7	205	258
1995	216	91	213.5	5	217	289

<sup>a</sup>Includes some briefings for the next fishing year.

<sup>b</sup>Includes mid-trip debriefings.

Table 5. Summary of vessels and vessel registrations, by vessel type, participating in the Onboard Observer Program through December 31, 1995.

Year	Vessels <sup>a</sup>			Registrations <sup>b</sup>		
	C/P	F/P	F/V	C/P	F/P	F/V
1988	21	6	0	35	8	0
1989	22	12	0	83	31	0
1990	26	15	0	80	39	0
1991	33	18	1	104	47	1
1992	32	19	2	90	35	2
1993	29	21	25	70	38	79
1994	24	17	31	48	27	100
1995	21	15	58	37	26	103

<sup>a</sup>Unique vessels requiring observer coverage; C/P = Catcher Processor, F/P = Floating Processor, and F/V = Fishing Vessel.

<sup>b</sup>Cummulative vessel registrations of all vessels requiring observer coverage.

Table 6. Summary of vessels, by vessel type, participating in the Onboard Observer Program during the Adak king crab fisheries through December 31, 1995.

Year	Adak Area		
	Catcher Processors	Floating Processors	Fishing Vessels
1988	13	4	0
1989	18	5	0
1990	9	2	0
1991	8	0	0
1992	8	1	0
1993	4	0	0
1994	3	1	0
1995	2	2	14

Table 7. Summary of vessels, by vessel type, participating in the Onboard Observer Program during the Dutch Harbor king crab fisheries through December 31, 1995.

Year	Dutch Harbor Area		
	Catcher Processors	Floating Processors	Fishing Vessels
1988	1	0	0
1989	4	2	0
1990	5	1	0
1991	4	0	0
1992	5	0	0
1993	0	0	0
1994	0	1	0
1995	1	0	16

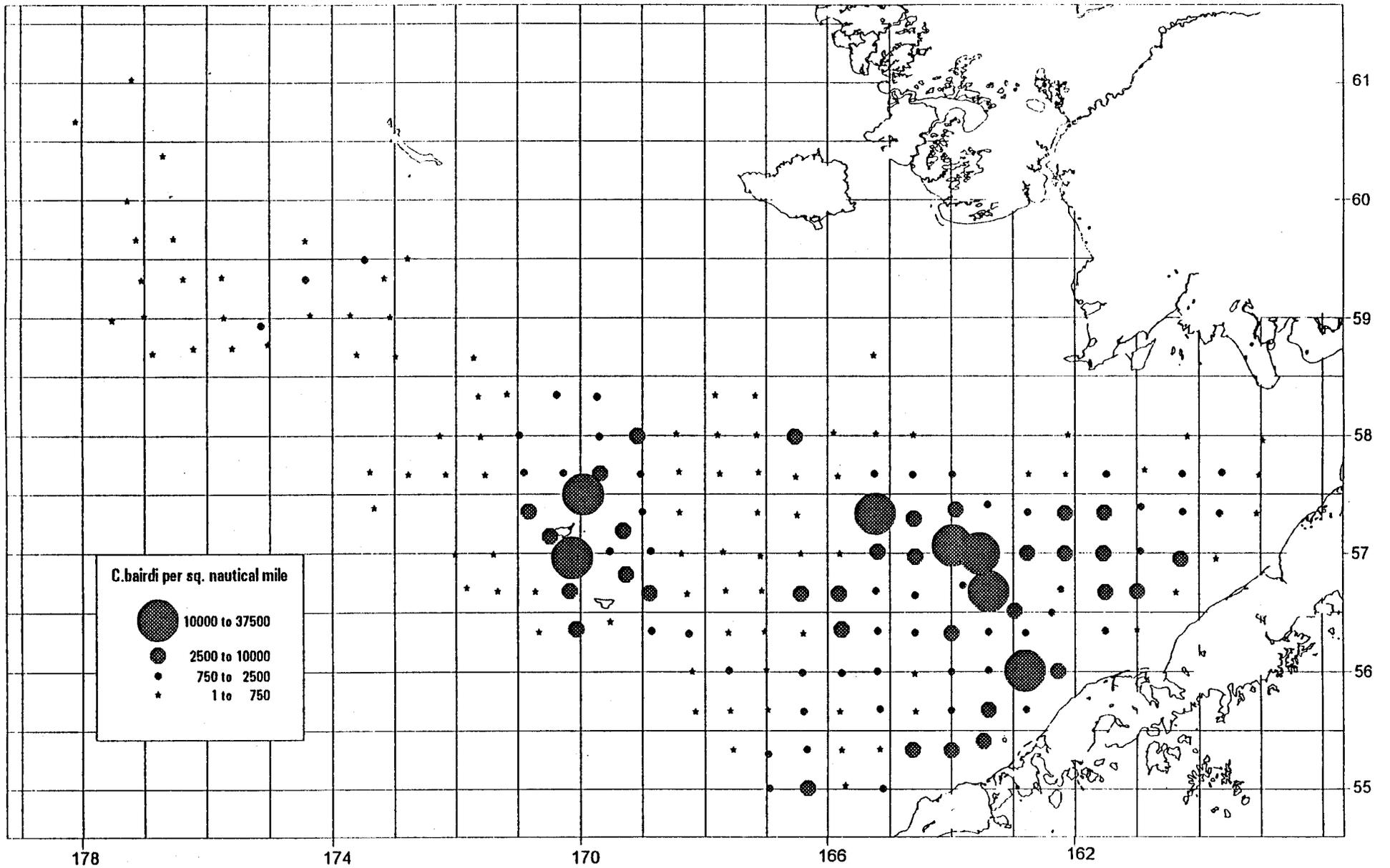


Figure 1. Distribution of Bering Sea male C.BAIRDI crab greater than 4 inch carapace width, 1990 NMFS Survey.

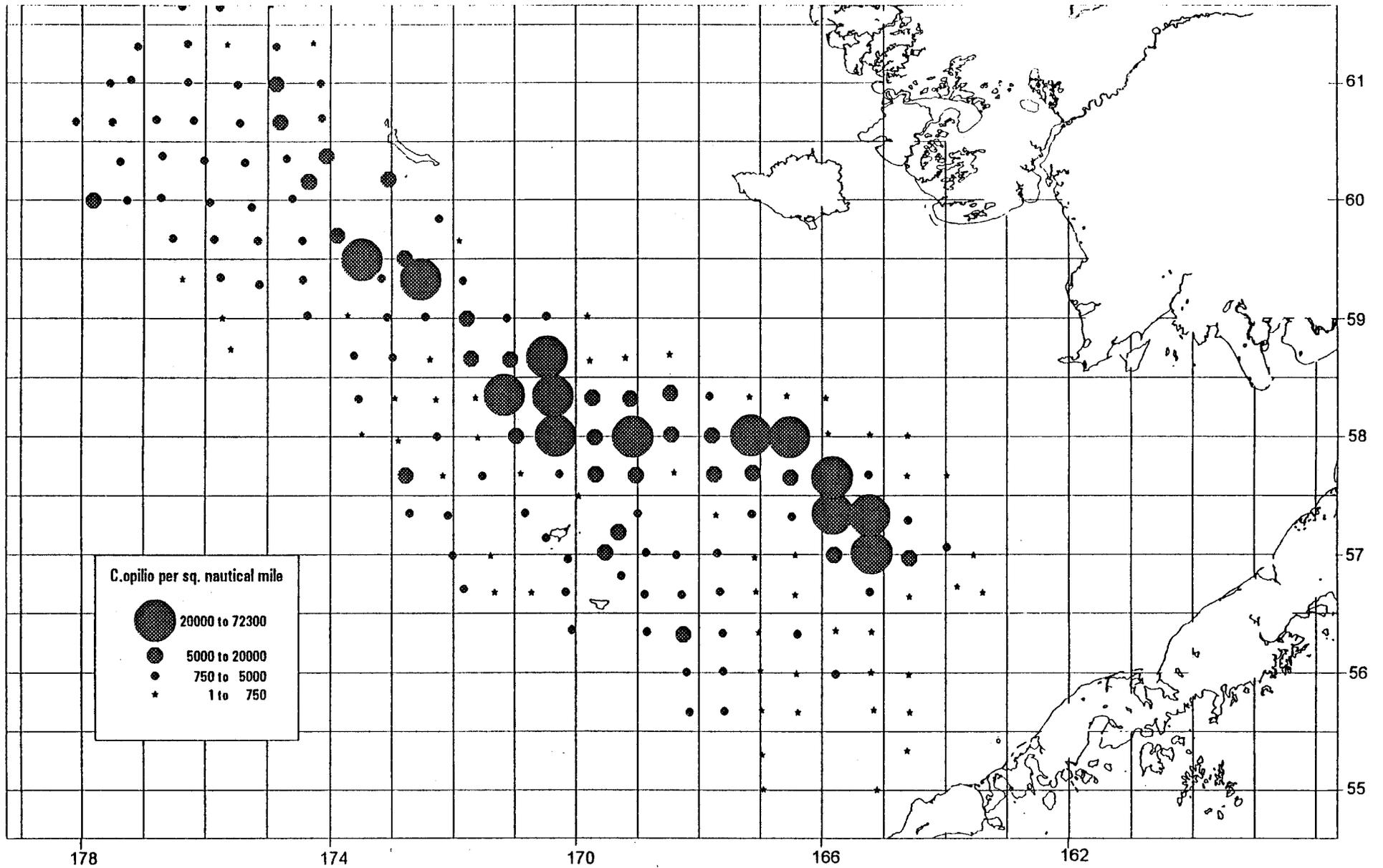


Figure 2. Distribution of Bering Sea male *C. OPILIO* crab greater than 4 inch carapace width, 1990 NMFS Survey.

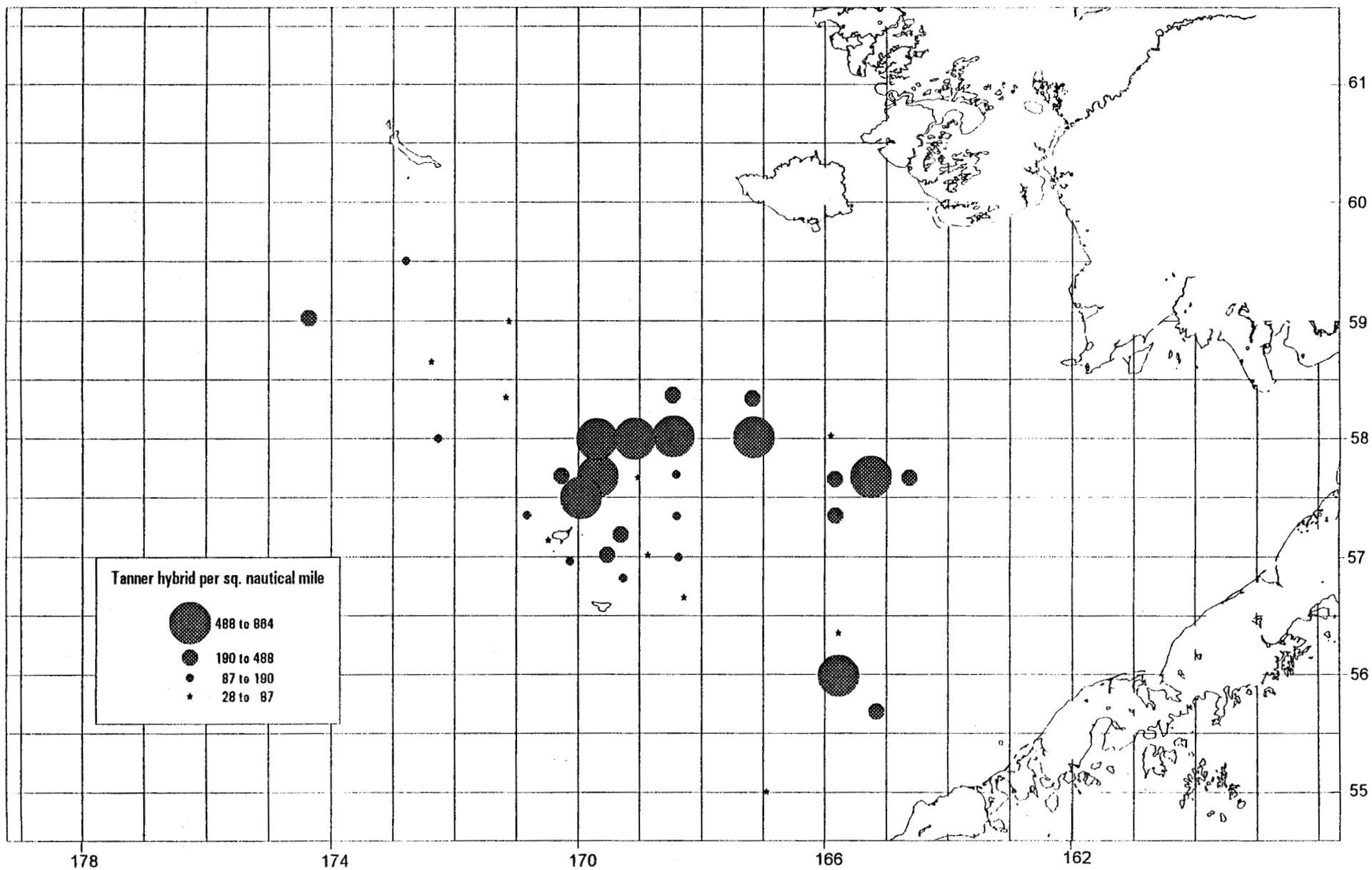


Figure 3. Distribution of Bering Sea male Tanner hybrid crab greater than 4 inch carapace width, 1990 NMFS Survey.

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