

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke  
Executive Director



ESTIMATED TIME

1 HOUR

DATE: April 5, 1994

SUBJECT: Groundfish Management

**ACTION REQUIRED**

- (i) Receive status report on *Opilio* bycatch.
- (j) Receive report on electronic communications.
- (k) Receive status report on mesh restrictions.

**BACKGROUND**

(i) *Opilio* Bycatch

Information on bycatch of *C. opilio* crab in groundfish and crab fisheries was provided by NMFS and ADF&G at the January Council meeting. Bycatch numbers from the observer program for the 1992 Bering Sea *C. opilio* and *C. bairdi* Tanner crab fisheries are listed in the attached tables, Item D-3(i)(1). NMFS has provided a report on *C. opilio* bycatch in the groundfish trawl fisheries, Item D-3(i)(2).

Though the Council did not have time for the *opilio* bycatch issue in January, the SSC reviewed the information and reported the following:

"The SSC received a report from the Council and NMFS staff on *C. opilio* bycatch in crab and groundfish fisheries. Bycatch in the groundfish fisheries is concentrated in statistical areas 513 and 514; bycatch rate is not indicated to vary significantly with time of year. Size information was not presented in the reports. The SSC cautions that the bycatch numbers presented for the two fisheries are not directly comparable, because the groundfish fisheries likely take smaller, younger *C. bairdi* and *C. opilio* crab."

The Council may consider initiating an analysis for a plan amendment to establish PSC caps for *C. opilio* Tanner crab in the BSAI, or some other program. Existing PSC crab caps for the BSAI trawl fisheries total 200,000 king crab and 4,000,000 *C. bairdi* Tanner crab. Other alternatives that may have potential to reduce *C. opilio* bycatch include a vessel incentive program (VIP), fishing season adjustments, or time/area closures for the BSAI and GOA trawl fisheries.

(j) Electronic Communications

NMFS is proposing to implement electronic reporting and recordkeeping requirements. Currently, most industry reports are submitted by fax, and all logbooks are kept on paper. NMFS indicates that electronic communication of reports would greatly improve efficiency and reduce costs associated with report submission and processing. The proposal is to implement electronic reporting and recordkeeping in a two-part approach; electronic reporting requirements would be phased in beginning in 1995, and electronic recordkeeping requirements implemented in 1996 at the earliest. A discussion paper, prepared by NMFS, is attached as Item D-3(j)(1). A draft EA/RIR to analyze the alternatives for implementation could be ready for Council review at the June 1994 meeting.

(k) Mesh Restrictions

In December of 1992, the Council reviewed a proposal submitted by the Highliner's Association recommending regulations to require a large mesh panel in codends during the pollock fishery. The purpose of such a regulation would be to reduce discarding of undersized pollock and bycatch of other species. In April of 1993, the Council reviewed a draft analysis of a proposed regulatory amendment to require a square mesh (90 and 110 mm stretched mesh) top panel in trawl codends used in the BSAI directed pollock fishery. The Council believed that it was premature to initiate an analysis of mesh regulations before completion of Alaska Fisheries Development Foundation's mesh selectivity study, and postponed further consideration of the proposal until 1994.

In June of 1993, as part of the decision on Pacific cod allocation (Amendment 24), the Council directed staff to begin study of a regulatory amendment to require a minimum 8" mesh size requirement for trawl vessels participating in the BSAI trawl cod fishery. This decision was followed up by a proposal submitted by Natural Resources Consultants (NRC) to regulate mesh size in both the pollock and Pacific cod trawl fisheries. In September of 1993, the Council received a staff report and discussion paper on the proposal to set a minimum codend mesh size in the BSAI cod trawl fishery at 8 inches. The Council voted to move forward with analysis of this proposal subject to the Groundfish Plan Team and Plan Amendment Advisory Group (PAAG) recommendation and ranking. The Plan Teams ranked the proposal a medium priority at a medium/high difficulty rating. It was noted that information on mesh selectivity and escapement mortality for Pacific cod was lacking. The PAAG and the SSC categorized the proposal under continued research needs. When the Council considered this proposal during staff tasking, it was assigned a low priority status by both staff and Council. Hence, no further analysis has been done to date.

Paula Cullenburg of the Alaska Fisheries Development Foundation (AFDF), will report on progress of the pollock codend mesh study that AFDF undertook in 1993. Although field work was prematurely suspended (due to an apparent scarcity of small pollock on the fishing grounds), AFDF collected enough information to generate selectivity curves for 112 mm diamond mesh and 108 mm square mesh codends. A study of survival rates of pollock escaping from codends, and further studies on mesh selectivity, are scheduled to begin this summer.

Catch per unit effort (CPUE) of selected commercially important species during the 1992 Bering Sea C. opilio fishery including total sample catches and estimated total catch in the fishery.

Species	Total pot <sup>a</sup> sample catch	Catch per unit effort	Estimated total <sup>b</sup> fishery catch
<u>C. opilio</u>			
legal male	253,995	208.9	267,767,184
sub-legal male	1,857	1.5	1,922,694
female	3,855	3.2	4,101,747
<u>C. bairdi</u>			
legal male	3,194	2.6	3,332,670 <sup>c</sup>
sub-legal male	9,886	8.1	10,382,548
female	958	.8	1,025,437

<sup>a</sup>Total pot contents derived from 1,216 random samples taken on catcher processors during the fishery.

<sup>b</sup>Estimated catch derived from pot sample CPUE x 1,281,796 total reported pot pulls during the fishery.

<sup>c</sup>Unknown portion legally retained.

Catch per unit effort (CPUE) of selected commercially important species during the 1992 Bering Sea C. bairdi crab fishery from November 15th to December 31st, 1992, including total sample catches and estimated total catch in the fishery.

Species	Total pot <sup>a</sup> sample catch	Catch per unit effort	Estimated total <sup>b</sup> fishery catch
<u>C. bairdi</u>			
legal male	15,365	29.7	14,629,181
sub-legal male	21,917	42.3	20,835,500
female	5,354	10.4	5,122,676
<u>C. opilio</u>			
legal male	2,754	5.3	2,610,595 <sup>c</sup>
sub-legal male	86	.2	98,513
female	66	.1	49,257

<sup>a</sup>Total pot contents derived from 517 random samples taken on catcher processors between November 15th and December 31st, 1992.

<sup>b</sup>Estimated catch derived from pot sample CPUE x 492,565 total reported pot pulls between November 15th and December 31st, 1992.

<sup>c</sup>Unknown portion legally retained.



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

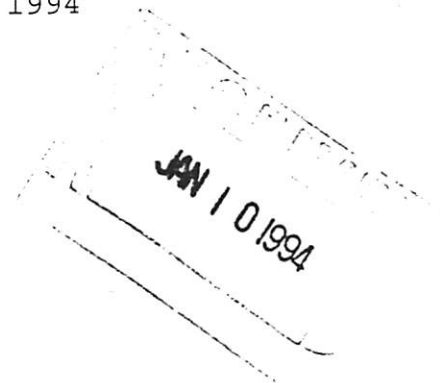
P.O. Box 21668

Juneau, Alaska 99802-1668

AGENDA D-3(i)(2)

APRIL 1994

January 6, 1994



Richard B. Lauber, Chairman  
North Pacific Fishery Management Council  
P.O. Box 103136  
605 West 4th Avenue  
Anchorage, Alaska 99501

Dear Rick,

Under Agenda Item D-2(d), the North Pacific Fishery Management Council will review bycatch information for Opilio Tanner crab (Chionoecetes opilio) in all fisheries, including directed groundfish fisheries. We have summarized certain Opilio bycatch information from the 1993 groundfish trawl fisheries in the Gulf of Alaska (GOA) and in the Bering Sea and Aleutian Islands area (BSAI).

Attached are tables that show Opilio bycatches. A total of 5,694 and 14,476,797 Opilio crabs (Table 1) were caught as bycatch in the GOA and BSAI trawl fisheries, respectively. Because most of the bycatch occurs in the BSAI, we focused our review in that management area.

Sixty-four percent of the total BSAI Opilio bycatch occurred in the yellowfin sole fishery, followed by 29 percent occurring in the rock sole/"other flatfish" fishery (Table 1). For each of the target fishery categories, most of the bycatch occurred in reporting areas 513 and 514 (Table 2). Figures also are attached, which summarize this information.

We will be available to discuss this information further during the Council meeting.

Sincerely,

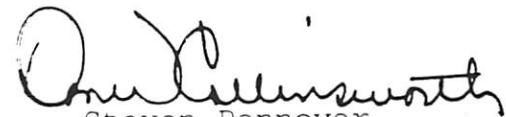
  
Steven Pennoyer  
Director, Alaska Region



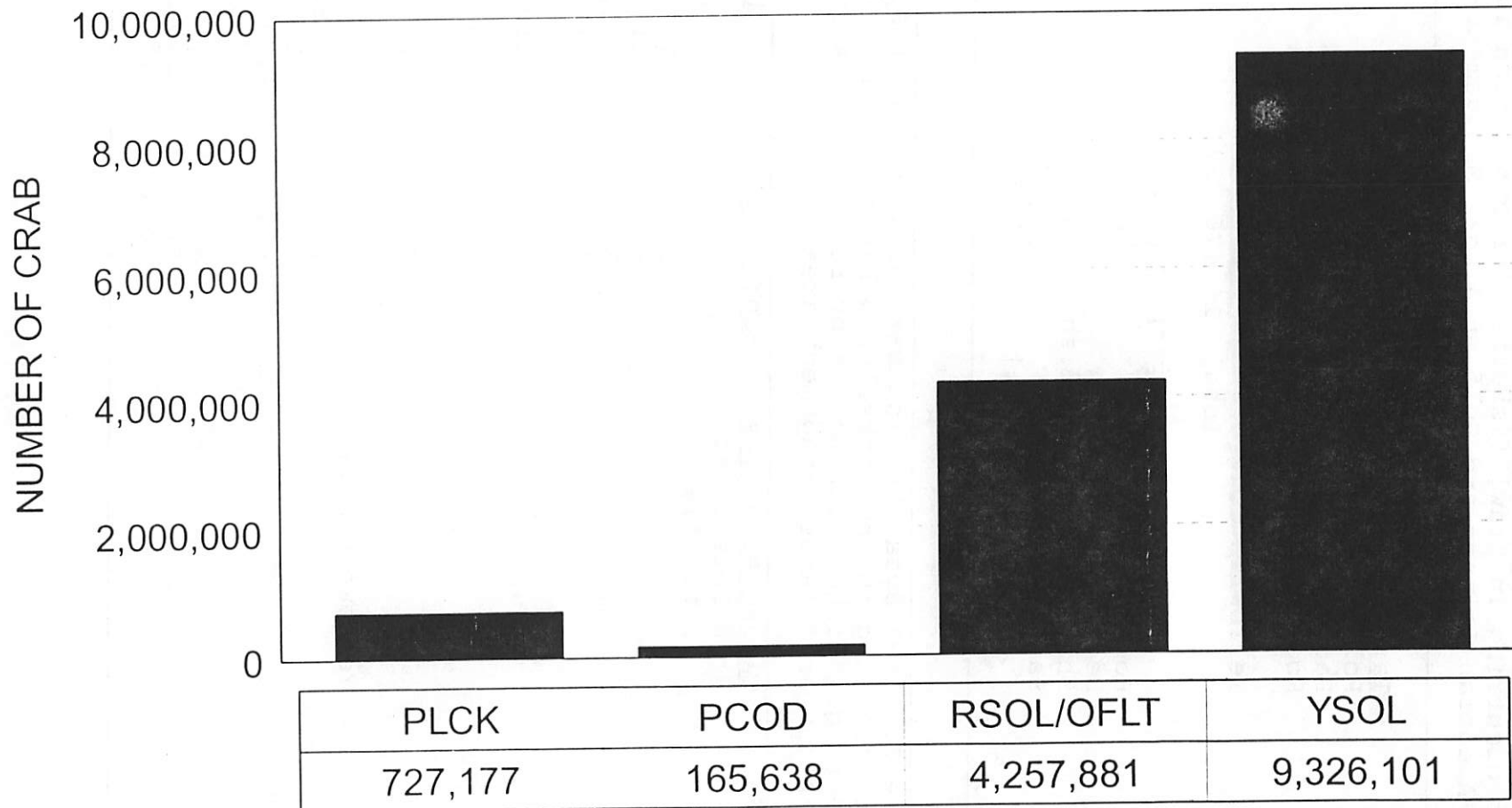
Table 1. 1993 Bycatches (numbers of animals) of Opilio Tanner Crab occurring in trawl fisheries for groundfish in the Bering Sea/Aleutian Islands and Gulf of Alaska Management Areas.

BERING SEA/ALEUTIAN ISLANDS	
<u>Target Fisheries</u>	<u>Number</u>
Pollock	727,177
Pacific cod	165,638
Rock Sole/Other flatfish	4,257,881
Yellowfin sole	<u>9,326,101</u>
Total	14,476,797
GULF OF ALASKA	
Rockfish	2,591
Deep water flatfish	454
Shallow water flatfish	2,571
Sablefish	<u>78</u>
Total	5,694

Table 2. 1993 Bycatches (numbers of animals) of Opilio Tanner Crab occurring in the rocksole/"other flatfish" and yellowfin sole target fishery categories by reporting area in the Bering Sea/Aleutian Islands management area.

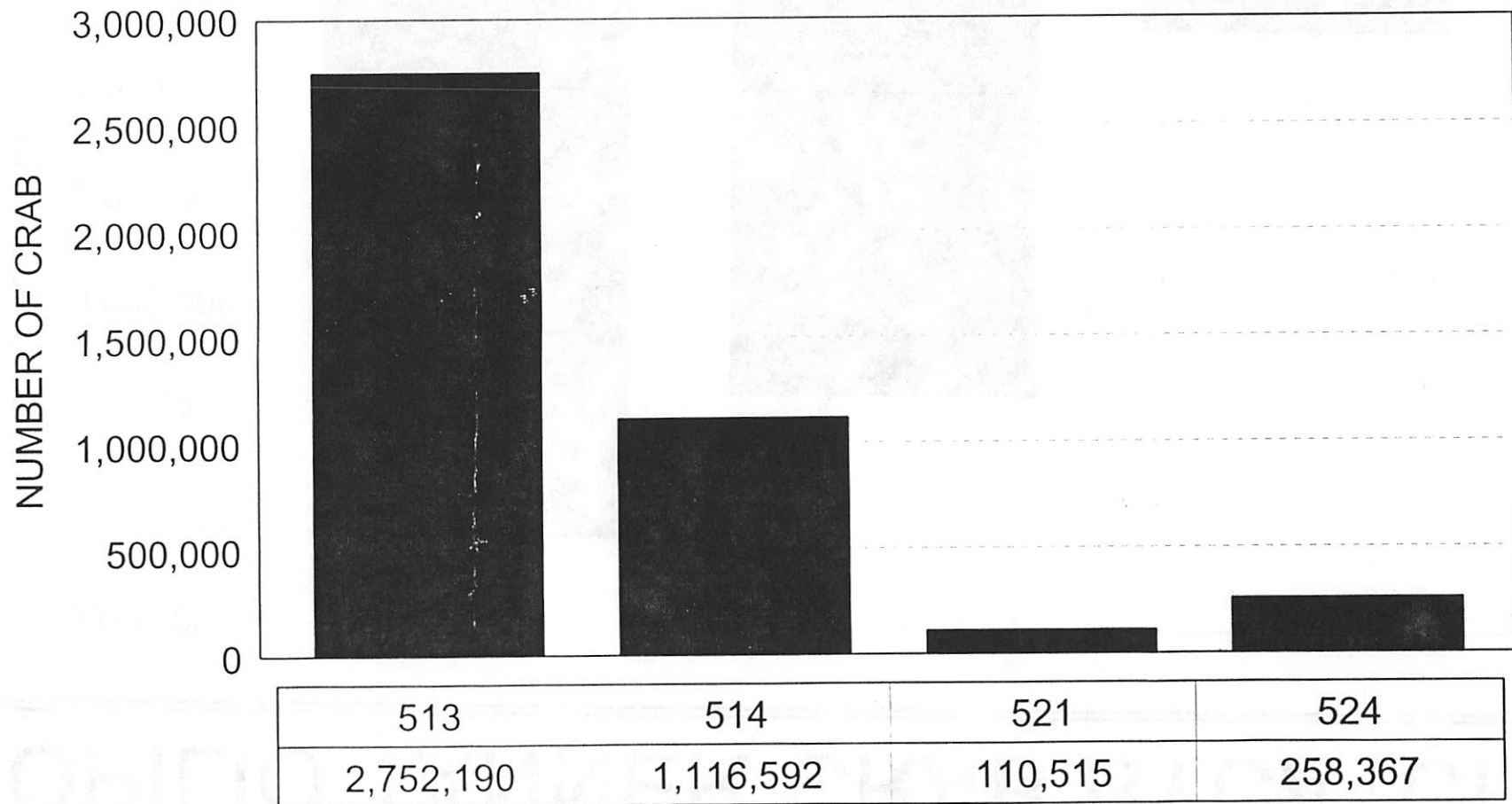
<u>Target Fisheries</u>	<u>Reporting Area</u>	<u>Number</u>
Rock Sole/Other flatfish	508	0
	509	2731
	513	2,752,190
	514	1,116,592
	516	1,449
	517	16,038
	519	0
	521	110,515
	523	0
	524	258,367
	540	<u>0</u>
Total	4,257,882	
Yellowfin Sole	508	0
	509	8,468
	513	5,167,494
	514	3,797,439
	516	0
	521	0
	524	<u>352,700</u>
Total	9,326,101	

# 1993 BSAI TRAWL OPILIO TANNER CRAB BYCATCH



(through 12/31/93)

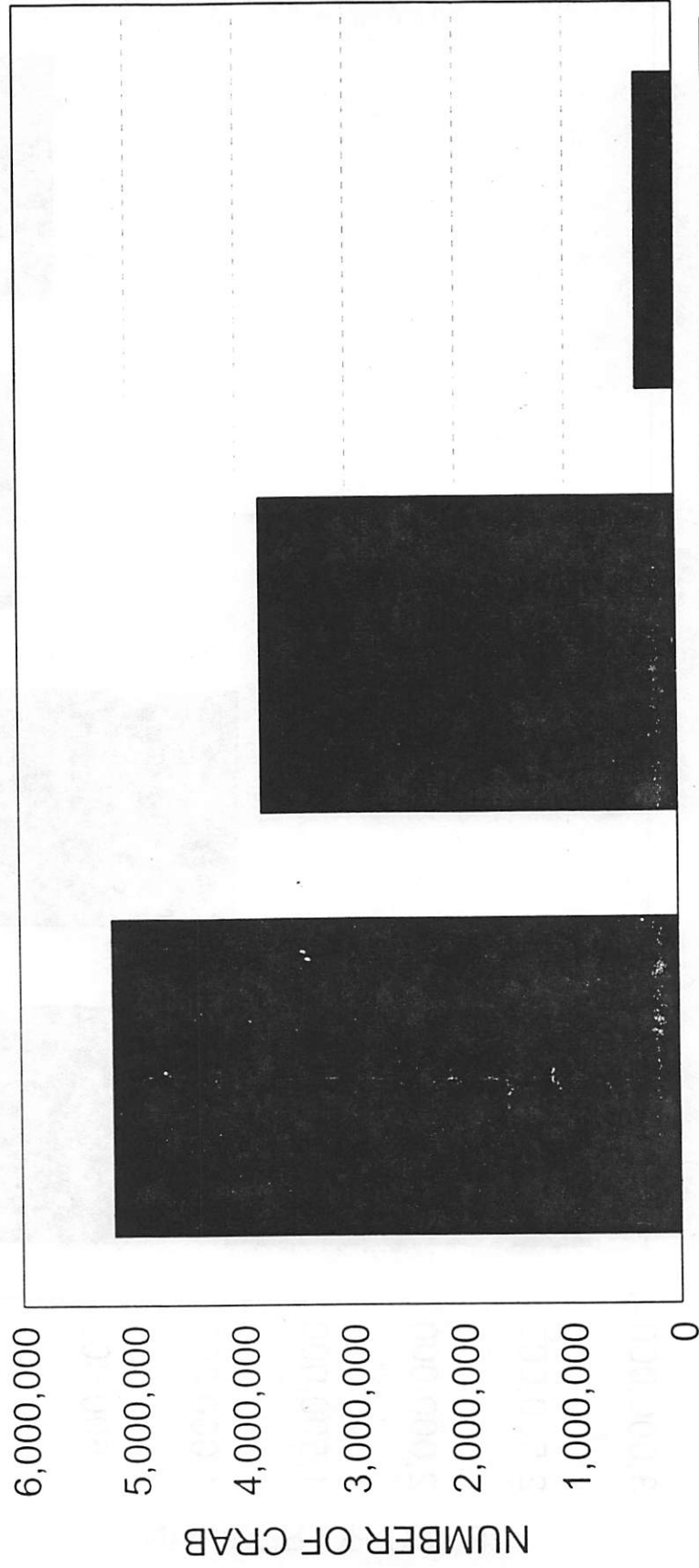
# 1993 BERING SEA RSOL/OFLT TRW OPTANNER CRAB BYCATCH



(through 12/31/93)



# 1993 BERING SEA YSOL TRAWL OPIILIO TANNER CRAB BYCATCH



513	514	524
5,167,494	3,797,439	352,700

(through 12/31/93)



AGENDA D-3(j)(1) CE  
APRIL 1994  
UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
P.O. Box 21668  
Juneau, Alaska 99802-1668  
March 31, 1994

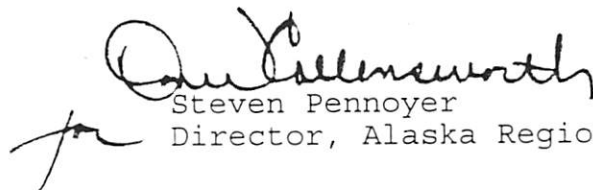
APR - 5 1994

Clarence G. Pautzke  
Executive Director  
North Pacific Fishery Management Council  
P.O. Box 103136  
Anchorage, Alaska 99510

Dear Clarence,

Attached is a discussion paper on Electronic Reporting and Recordkeeping for Council consideration under agenda item D-3(J) at its April meeting. National Marine Fisheries Service (NMFS) proposes to implement requirements for electronic submission of Weekly Production Reports and Observer reports as well as requirements for electronic maintenance of logbooks. This paper outlines the need for implementation of electronic reporting and recordkeeping. It also outlines a 2-part approach to implementation of electronic reporting and recordkeeping. NMFS proposes to implement electronic reporting as part 1, followed by electronic recordkeeping as part 2.

Sincerely,

  
Steven Pennoyer  
Director, Alaska Region

Enclosure



**DISCUSSION PAPER**  
**ELECTRONIC REPORTING and RECORDKEEPING**

**Purpose of and Need for the Action**

Communication between the fishing industry and NMFS is a critical element of successful fisheries management. Industry submits Weekly Production Reports, check-in/check-out reports and transfer logs to NMFS for management purposes. Observers also submit reports of catch and bycatch to the Observer program for use by in-season management. At present, most industry reports are submitted by fax. Transmission and processing of reports is costly, time-consuming and can be inefficient both for NMFS and the Industry. Electronic communication of reports would greatly improve efficiency and reduce the costs associated with report submission and processing. NMFS could require electronic submission of Weekly Production Reports directly to the NMFS region office as well as electronic submission of Observer reports to the Observer Program. NMFS could also require electronic submission of transfer logs and check-in/check-out reports.

Maintenance of logbooks is also a critical element of fisheries management and enforcement. All logbooks are currently kept on paper, which is both costly and time-consuming. Implementation of electronic logbook requirements would improve efficiency and reduce the overall burden and costs associated with recordkeeping. NMFS could require electronic logbooks for all vessels subject to logbook requirements under regulations at §§ 672.5 and 675.5.

**Implementation of Electronic Reporting and Recordkeeping**

NMFS proposes to implement electronic reporting and electronic recordkeeping in a 2-part approach. NMFS is considering the implementation of electronic reporting requirements as Part 1, to be followed by requirements for the electronic maintenance of logbooks as Part 2. The projected time-frame for beginning the implementation of Part 1 would be sometime in 1995 with Part 2 following, at the earliest, in 1996.

**Part 1: Electronic submission of in-season data**

Within the scope of Part 1 NMFS would propose requirements for electronic submission of data used to manage groundfish TACs and prohibited species limits. For at-sea vessels this would be in some form of satellite communication capabilities; on-shore processing plants would likely submit data via a modem over the telephone lines. NMFS proposes to phase in requirements for

electronic reporting over a period of time, beginning with requirements for the processor fleet followed by requirements for catcher vessels with 100 percent Observer coverage and finally including those vessels with 30 percent Observer coverage. This would eventually result in electronic report submission by all of the fleet from whom NMFS receives reports, including Observer reports, that are used to manage groundfish catch and prohibited species bycatch. NMFS would propose that Weekly Production Reports and Observer reports, as well as other pertinent data used on an in-season basis to manage the fisheries, be submitted electronically. NMFS proposes to implement electronic reporting requirements for the processor fleet sometime in 1995, followed by the addition of the 100 percent Observer coverage vessels in 1996 and finally the 30 percent Observer coverage vessels in 1997. NMFS will prepare an Environmental Assessment/Regulatory Impact Review(EA/RIR) to analyze the alternatives for implementation. Provided that the scheduling of other regulatory actions permits, a draft EA/RIR could be ready for Council review at its June 1994 meeting. After consideration by the Council, a regulatory amendment would be prepared to implement this proposal.

Presented below are the alternatives for Part 1:

Alternative 1: Status quo. Reports would continue to be sent via fax at a cost to the Industry in time and the burden of paperwork. This alternative does not improve the efficiency of in-season management.

Alternative 2: Implementation of Electronic Reporting requirements. Under this alternative electronic reporting would be implemented in three phases (listed below) to eventually include all vessels that submit reports used to manage groundfish Total Allowable Catch(TAC) and prohibited species limits. This alternative would benefit both the Industry and NMFS. The time and burden associated with maintaining reports on paper would be reduced and the annual cost of report production would be eliminated. Both NMFS and the Industry would benefit from improved efficiency of management of groundfish TACs and prohibited species limits.

Phase 1: All processors- shoreside and at-sea.

Under regulations at §§ 672.5 and 675.5 all processors are required to submit Weekly Production Reports within 48 hours after the end of a week. Most reports are submitted to NMFS via fax. With implementation of phase 1 all processors would be required to submit reports electronically. For processors without access to phone service and a modem, this would require capabilities for satellite

communication. Available information (current to October 13, 1993) indicates that 63 percent of the at-sea processors already have either Standard A (49 percent) or Standard C (14 percent) satellite communication capabilities; therefore, costs associated with implementation of satellite communication capabilities would be incurred by 37 percent of the fleet. All of the fleet would require the appropriate software.

In this phase, Observer reports from processor vessels and plants could be submitted electronically; however, Observer reports from catcher vessels would not necessarily be available via electronic communication.

Phase 2: All catcher vessels with 100 percent observer coverage.

Implementation of this phase would include all catcher vessels subject to 100 percent observer coverage (i.e. all vessels 125 feet and over, under regulations at §§ 672.27 and 675.25). These vessels would be required to submit Observer reports electronically, via satellite communication. Catcher vessels with 30 percent observer coverage (i.e. those vessels 60-124 feet), however, would not be required to have electronic communication capabilities at this time. Costs associated with the acquisition of satellite communication capabilities would be incurred by 68 percent (that portion of the fleet that does not currently have satellite communication capabilities) of the catcher boats 125 feet and over. All processors and all catcher vessels subject to 100 percent Observer coverage would incur costs associated with software acquisition.

Phase 3: All catcher vessels with 30 percent observer coverage.

By the time that this phase is implemented all processors and all vessels with 100 percent Observer coverage would already be submitting Weekly Production Reports and Observer reports electronically. This phase would include those vessels subject to 30 percent Observer coverage (i.e. vessels 60-124 feet). Costs associated with implementation of satellite communication capabilities would be incurred by 90 percent (that portion of the fleet that does not currently possess satellite communication capabilities) of the catcher vessels 60 feet and over. Software acquisition costs would also be incurred.

## Part 2: Electronic logbooks

All vessels and shoreside processors would be subject to requirements for maintenance of electronic logbooks. This would not necessarily require vessels to have the ability to electronically transmit logbook information. The logbook information could be stored on a disk and sent in the mail on a quarterly basis. Costs associated with this option would be in the acquisition of the appropriate hardware and software. Maintenance of electronic logbooks would greatly reduce the burden in time and expense associated with production, maintenance and processing of logbooks.

NMFS is currently exploring the details of implementing electronic logbooks. An Environmental Assessment/Regulatory Impact Review would be prepared to analyze this phase and a regulatory amendment would implement these requirements.

April 12, 1994

APR 12 1994

Mr. Richard B. Lauber, Chairman  
North Pacific Fishery Management Council  
P.O. Box 103136  
Anchorage, Alaska 99510

RE: Adding "Changing "A" Season Starting Date" to April Council Agenda

Dear Rick:

Recently, I have received a number of calls from people expressing concern over the early starting of the "A" season in relation to the onset of roe maturity and the increasingly shorter season. They stated to me that significant economic losses were suffered this year due to the early closure of the "A" season; and are requesting that the council revisit this issue again at the upcoming April meeting.

When this issue first surfaced, I discussed with Clarence the staff work which might be required to update the document which we looked at last year; and also when we would need to discuss this matter to have something in place for the start of "A" season next year. As for timing, the council would have to take up the issue at this meeting in order to allow enough time for the document to be updated, sent out for public review and the council make its decision before the start for the new season. The effort required to update last year's documents appears to be minimal.

I feel that there is ample justification to revisit this issue in light of the significant economic benefits foregone due to the early opening date of the "A" season pollock fishery. The value of the roe from this year's fishery was probably in the order of \$150 million (\$13,000/mt X 12,000 mt). If the loss in value due to lower quantity of roe and lower average value/kg was say 20%, the total economic loss to the fishery could have been in the order of \$30 million. I would consider that significant, particularly considering the difficult economic condition of the pollock industry at all levels.

Since the draft agenda has already been distributed, I would ask that I be able to request at the beginning of our meeting that we consider adding this item to our agenda. I am fully aware that we already have a full agenda before us, but I wouldn't imagine this important item taking much time to address at this meeting.

Thank you for your considerations.

Sincerely,



Walter F. Pereyra

# North Pacific Fishery Management Council

Richard B. Lauber, Chairman  
Clarence G. Pautzke, Executive Director

605 West 4th Avenue  
Anchorage, Alaska 99501



Mailing Address: P.O. Box 103136  
Anchorage, Alaska 99510

Telephone: (907) 271-2809  
FAX: (907) 271-2817

February 23, 1994

Dr. William Aron  
Alaska Fisheries Science Center  
7600 Sand Point Way N.E., Bldg 4  
Seattle, Washington 98115

Dear Bill:

Enclosed is a letter I sent to Steve Hughes concerning mesh size restrictions for the BSAI cod trawl fisheries. The letter is self-explanatory: I need any help your staff can give me on providing information and performing the analysis should the Council choose to go forward with an examination of alternatives. I would appreciate a feasibility report at our April meeting on whether an initial review document could be available for June. I have enclosed information provided by David Witherell to bring you up to speed on past Council activities on mesh regulations.

Thanks for any help you can provide.

Sincerely,

A handwritten signature in black ink, appearing to be 'Clarence Pautzke', written in a cursive style.

Clarence Pautzke  
Executive Director

Enclosures





**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
**Alaska Fisheries Science Center**  
7600 Sand Point Way NE.  
BIN C15700, Building 4  
Seattle, WA 98115

APR 13 1994

Dr. Clarence Pautzke  
Executive Director  
North Pacific Fishery  
Management Council  
P.O. Box 103136  
Anchorage, Alaska 99519

Dear Clarence,

The enclosed memorandum contains information prepared by Center staff on the mesh size issue raised in your February 23, 1994 letter. Please let me know if any questions arise.

Sincerely yours,

William Aron  
Science and Research Director  
Alaska Region

Enclosure





**UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE**

**Alaska Fisheries Science Center  
Resource Ecology and Fisheries  
Management Division  
BIN C15700; Building 4  
7600 Sand Point Way NE  
Seattle, Washington 98115-0070**

March 11, 1994

F/AKC2

MEMORANDUM FOR: Richard Marasco

FROM:

*RM* *GT* *VW*  
Richard Methot, Grant Thompson, Vidar Westpestad

SUBJECT:

Comments on proposed cod mesh regulations

We reviewed the proposal and background material provided by the Council staff. In addition, we reviewed size frequency data from the recent surveys and fishery, and performed some simple analyses to evaluate the effect of knife-edge selectivity at 61 cm (size of 50% maturity) on stock size and yield.

We cannot offer any guidance on the actual effect of instituting an 8" minimum mesh size regulation, since there has not been any observation of this size mesh. The current fishery is primarily conducted with 4.0" to 5.5" mesh. Mike Guttormsen provided the following distribution, from a sampling of 13 vessels, of codend mesh size from the 1993 Bering Sea cod fishery:

Mesh Size in inches	Percent usage
4.0	31
4.5	23
5.0	31
5.5	15

Figure 1 shows the size frequency of cod harvested in 1990 to 1993. It can be seen that the frequency of small cod increased in 1992 and 1993. This corresponds to the increased abundance of cod of this size due to strong recruitment (Figure 3). Figure 2 shows the cumulative length frequency of the cod catch for 1990-1993. The length of 50% maturity, 61 cm, is marked by the vertical dashed line. Comparison of cumulative length frequency with the length of



50% maturity indicates that approximately 30% of the cod harvested in 1990-91 were below the 50% maturity length. In 1992 and 1993 the cumulative percentage of immature cod in the harvest increased. If the length of 50% maturity is lower than 61 cm, then immature cod would comprise a smaller fraction of the catch. Collections are currently being made by observers in order to re-estimate this parameter.

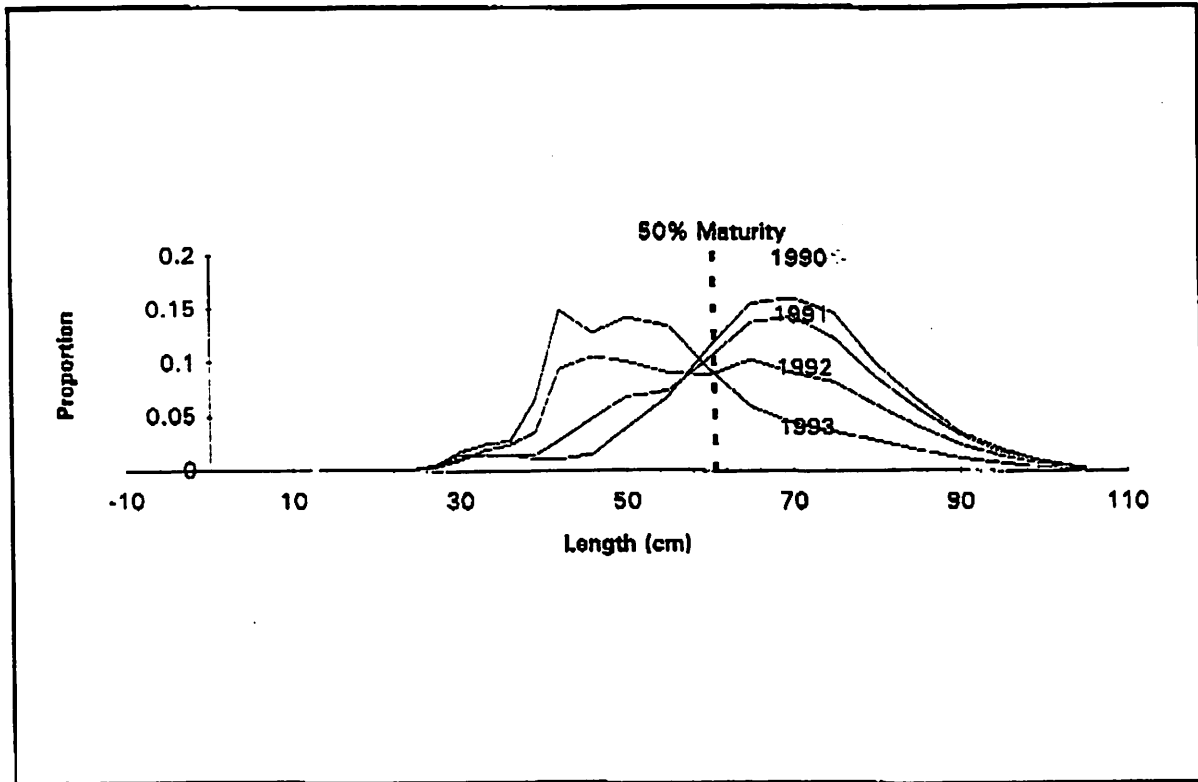


Figure 1. Length frequency of Pacific cod in the Bering Sea trawl fishery, 1990-1993.

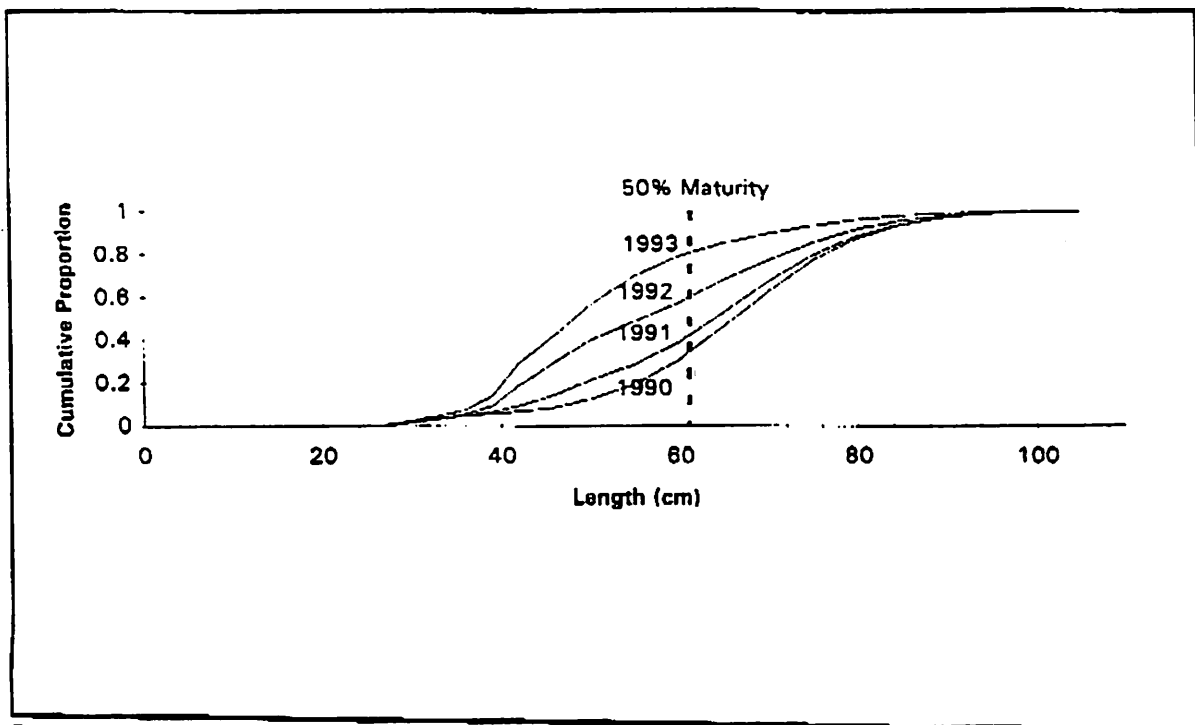


Figure 2. Cumulative length frequency of Pacific cod in the Bering Sea trawl fishery, 1990-1993.

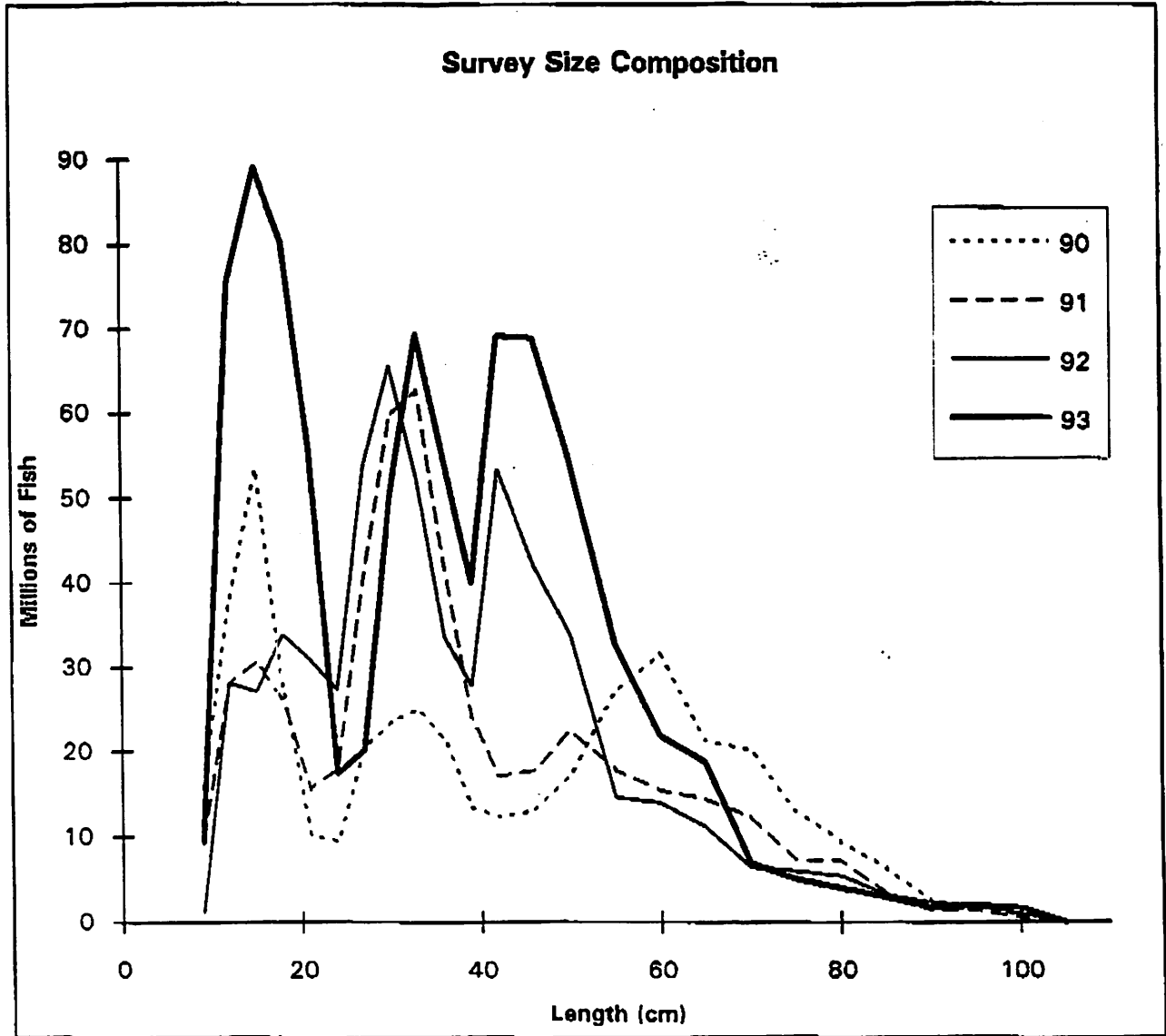


Figure 3. Population numbers at size as observed in the Eastern Bering Sea bottom trawl survey.

At present the spawning stock is large and increasing, management is directed toward maintaining a safe level of spawning biomass per recruit, and harvest practices, including expected removals of small fish, are accounted for in establishment of annual ABC values.

The projection of catch and biomass under knife-edge recruitment at age 5 (no harvest of cod smaller than 59cm) indicates that the ABC in 1994 would have been reduced by only 1,000 t and 1995 biomass would have been essentially unchanged.

BSAI Amendment 24, Appendix E reports the result of examination of selectivity among trawl, longline and pots. The size at 50% selectivity by year and gear were:

Years	1978-1983	1984-1985	1986-1989	1990-1992
Trawl (Jan-May)	56 cm	56 cm	56 cm	52 cm
Trawl (Jun-Dec)	64 cm	39 cm	59 cm	54 cm
Longline	64 cm	55 cm	55 cm	54 cm
Pot				64 cm

Pots select for larger cod than do trawls and longline, which for the most part appear to have similar 50% selectivity lengths. The summer and autumn trawl fishery appears to harvest a higher proportion of small cod (Thompson and Methot 1993). This is believed to reflect the fishery's respond to variation in the abundance of newly recruiting cod. This is what apparently happened in the 1992 and 1993 fishery (Figure 1). Small cod abundance has increased, due to strong 1989 and 1990 year-classes. Therefore the proportion of small cod in the catch has increased, similar to what has been observed in the pollock fishery with the strong 1989 pollock year-class. High incidence of small cod in the fishery is expected to continue for at least two more years as the survey indicates strong recruitment of the 1991 and, especially, the 1992 year-classes.

This cursory analysis of the available data does not indicate a biological need to institute a mesh size regulation for Bering Sea cod. Implementing an 8" mesh size will definitely shift the catch curve to the right, and will also likely extend the time required to harvest the TAC. The effect on the by-catch of other species can not be determined without a performance study of trawls employing 8" mesh codend.

#### Reference

Thompson, G and R. Methot. Pacific cod. In: Stock assessment and fishery evaluation report for the groundfish resources of the Bering Sea/Aleutian Islands regions as projected for 1994. North Pac. Fish. Mgmt. Council, Anchorage, AK, pp 2:1-28.



Alaska Fisheries Development Foundation, Inc.

March 8, 1994

Clarence Pautzke, Executive Director  
North Pacific Fishery Management Council  
605 W. 4th Avenue, P.O. Box 103136  
Anchorage, AK 99501

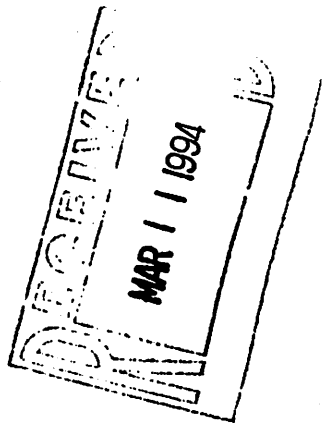
Dear Clarence,

I'm writing to update you on the Pollock Codend Mesh Study that AFDF undertook this last fall. As you may have heard, we suspended our field season prematurely since the Bering Sea had such a small population of undersized pollock in 1993. We did gather enough data to generate decent selectivity curves for the 112 mm (between knots) diamond mesh and 108 mm square mesh codends. Sample sizes exceeded 10 tows and length frequency distributions of pollock were adequate for these 'larger' mesh codends.

We also tried to collect sufficient data to draw some conclusions about the selectivity of a codend with 108 mm square mesh as the top panel. Although we can place little weight in the results of the "highliners" codend, we infer from the results that the panel was more effective in achieving selectivity than any of the small mesh codends. Dave Witherall has copies of the selectivity curves generated and our cruise report.

For 1994, we intend to return to the Bering Sea immediately prior to the pollock B season to focus on the intermediate mesh sizes that we were unable to test last fall. We will continue to work with American Seafoods Co. who will again contribute some of their CDQ fishing time to the project.

We have collected some income from American Seafood's sales of pollock caught under the Research Permit. Those funds will be directed toward a study of survival rates of pollock escaping from selective mesh sizes and will begin as soon as possible after this season's work is completed.



Dr. Pikitch and I would be happy to make ourselves available to the Council at its April meeting to go over the results to date. Please try and give me as much notice as possible, Clarence, if you would like us to come.

Sincerely,  
  
Paula Cullenberg  
Project Manager

cc: Steven Hughes, Natural Resource Consultants  
Al Burch, Alaska Draggers Association  
Brent Paine, United Catcher Boats  
Joe Blum, AFTA

April 23, 1994  
North Pacific Fishery Management Council

**Council Discussion — Trawl Mesh Analysis**

**BOB ALVERSON:** On trawl mesh regulations, Mr. Chairman, I'd move the AP recommendation which reads that the Council recommends that we would not send out the trawl mesh regulation amendment for public review until the AFDF study has been completed and incorporated into the analysis and until the east coast mortality data and any other applicable mortality data is integrated into the analysis. The Council also recommends and encourages AFDF to include mortality estimates in their upcoming gear study.

Second by ?

**RICHARD LAUBER:** Any discussion?

**WALLY PEREYRA:** Mr. Chairman I have a little problem here because the way in which this is worded it sort of sounds like we're sanctioning the AFDF study and I have a problem with that study. The way in which this study is presented to us as far as I can see it's just a veiled commercial fishing operation. Because the experimental design which is proposed here is probably one of the most inefficient experimental designs that I could devise myself. There are other ways of going about this - looking at alternate tows, looking at paired codends, there are other ways of achieving the same results. The approach that has been taken here, you know if you go and make some calculations, could result in 30,000 tons of fish and you know that's a full blown commercial fishing operation. I have some concerns about that and so I want to make certain that if we are going to go ahead and follow along with delaying consideration of this until after the AFDF study is completed that we are not at the same time sanctioning this study as it's presently being presented to us.

**ALVERSON:** Mr Chairman that was not the intent of my motion. I know there are some problems with it and I had similar concerns as Wally has in terms of the total volume that may be generated in that study in terms of harvest.

**PEREYRA:** Mr. Chairman, I would hope that maybe we could come to some understanding among us here that first of all, I think we all need to get copies of whatever proposal is presented even though you're probably not required to provide us copies. When you get a copy of their research proposal or request for a research permit that we would have a chance to review it. Is that possible?

**STEVE PENNOYER (NMFS - Alaska Regional Director):** Mr. Chairman we had all sorts of requests for research permits but I think if they directly affect fisheries that you're concerned with, I hope we are sending you a copy. I think we do. Secondly, if there's a major commercial aspect involved is usually an experimental permit which by regulation we bring to you and get a chance to talk about as you did with the arrowtooth project in Kodiak. I don't know what we're going to do with this yet, I haven't reviewed the study proposal, I haven't had a chance to go over with the Center (Alaska Fisheries Science Center) what the aspects are of, as you said, commercial harvest or how much profit motive might be involved or whatever, so we still have a ways to go on it. We have not signed off on issuing anybody a permit at this time. My understanding of the motion was that if and when this occurs, it wasn't underwriting a proposal as currently envisioned. It was more saying when it does occur presuming it jumps through all the loops it's supposed to that we would like that information incorporated in this analysis before the analysis goes out for public review.

**PEREYRA:** If they wanted to go forward with this within the course of the directed fishery there would not be a need for any kind of proposal from your side would there, I mean any kind of action from your side.

**PENNOYER:** That's why we still have to look at that. If you want to go through during the course of the directed fishery there probably still will be a research design under just the S-K (Saltonstall-Kennedy) funding because we're going to want to look at how our people are integrated into it, evaluate the study design and so forth, have observers on board, or whatever may be required. If they do it as part of the normal fishery or



the CDQ fishery for example, then in all probability, it will be just a research fund.

LINDA BEHNKEN: I was just going to propose a friendly amendment to Bob's that we incorporate the comments of the SSC and the minor change that they propose. Is that amiable?

ALVERSON: I believe so, I don't recall what that was. Yes, that would be fine.

LAUBER: What is it?

ALVERSON: I don't know.

BEHNKEN: It's the uncertainties associated with the escapement survival under and discussion of the implications of that.

CLARENCE PAUTZKE (NPFMC Executive Director): Lactic acid stuff?

Correct.

LAUBER: That's included without objection. Now is there any other discussion on the motion?

OSCAR DYSON: The AFDF had been working on those net sizes and trawl codends for four or five years and this last year they made another experiment where they dragged two bags. One diamond and one square and they reported some substantial improvements on the thing. It's something we should look at Wally.

PEREYRA: I'm not arguing that we shouldn't look at it but I just think there are ways to conduct this research within the course of the regular commercial fishery that would give you the results you're looking for that would not result in an additional 30,000 ton operation. It's a very significant operation.

LAUBER: Any other discussion?

Call for the question.

LAUBER: Is there any objection to the motion? Hearing none, passes.

ALVERSON: In regards to total weight measurement . . .