**ESTIMATED TIME** 

2 HOURS

#### **MEMORANDUM**

TO:

Council, SSC and AP Members

FROM:

Clarence G. Pautzke

**Executive Director** 

DATE:

September 23, 1998

SUBJECT:

Scallop License Limitation Program

#### **ACTION REQUIRED**

Initial review of amendment to establish a license limitation program for the scallop fishery.

#### **BACKGROUND**

In December 1996, the Council approved for analysis a proposal to establish a license limitation program for the Alaska scallop fishery. Amendment 4 has been proposed to establish a license limitation system for the scallop fishery to replace the Federal vessel moratorium, which is scheduled to expire in the year 2000. At its February 1998 meeting, the Council reviewed participation and other data from the scallop fishery and developed a problem statement and alternatives for analysis. These alternatives are as follows:

Alternative 1: Status quo. The scallop vessel moratorium would expire in 2000 [open access].

Alternative 2: Vessel owners who qualify for Federal moratorium permits would receive a license [18

licenses total].

Alternative 3: Vessel owners who qualify for State moratorium permits would receive a license [10 licenses

totall

Alternative 4: Holders of either Federal or State moratorium permits that used their moratorium permits

to make legal landings of scallops in 1996 or 1997 would receive a license. The federal or state moratorium qualification period would serve as the historic qualifying period and the

years 1996 and 1997 would serve as the recent qualifying period.

Option 1 Area Endorsements (applicable to Alternatives 2-4):

A: Separate endorsements for Cook Inlet and statewide areas. Must have a legal landing of scallops in each area during the qualifying period to receive an endorsement in that area.

B: No area endorsement. All licenses are statewide.

C: No area endorsements. All licenses are statewide. However, license holders who never made a legal landing of scallops from outside Cook Inlet during the qualifying periods would be restricted to a single 6 ft dredge in all areas (e.g., restricted and unrestricted licenses).

Option 2 Vessel Reconstruction and Replacement (applicable to alternatives 2-4):

A. No restrictions on reconstruction or replacement.

- B: Maximum length overall (LOA) would be equal to 120% of the length of the vessel on January 23, 1993 (maximum LOA under Federal moratorium).
- C: Maximum vessel length would be restricted to 120% of the LOA of the vessel on which the permit was used in 1996 or 1997 on or before December 31, 1997. If a permit was used on more than one vessel in 1996 or 1997, maximum LOA would be calculated using the longest vessel.

#### Option 3 License Recipient (applicable to alternatives 2-4):

- A: Licenses would be issued to current owners of vessels that fished in qualifying years 1996 or 1997.
- B: Licenses would be issued to current moratorium permit holders for those permits that were fished in qualifying years 1996 or 1997.

Note that participation in 1998 has not been considered for qualifying under these alternatives. A draft analysis was mailed out to you in August. An executive summary is attached as <u>Item D-4(a)</u> in your briefing books.

A draft of this analysis was reviewed by the Joint Council/Board of Fish Committee. The Committee agreed that all reasonable alternatives are contained in the document as drafted, and took no action regarding a request (by Dave Erickson of Dames and Moore) to add 1998 as a year of eligibility under Option 4. The Committee did express a desire to eventually have one limited entry program which applies to both Federal and State waters, noting that action by the Legislature (or CFEC possibly) may be required to complement the Council's limited entry program. The Committee continues to support a common set of qualifying rules for the scallop fishery so that qualified fishers are the same in both areas. It was acknowledged that the BOF and Council would be meeting jointly, in February 1999, prior to the Council's final decision on this issue.

At the this meeting, the Council is scheduled to review the analysis and release it for public review. Final action on this amendment is scheduled for February 1999.

F/V LA BRISA (F/V Wayward Wind) (F/V Shayen Nicholas) Max & Scott Hulse P. O. Box 770881 Eagle River, Alaska 99577 September 22, 1998

Mr. Charles G. Pautzke and Board Members North Pacific Fishery Management Council 605 West 4th Avenue, Suite 306 Anchorage, Alaska 99501-2252

Dear Mr. Pautzke and Board Members,

SEP 2 3 1998

N.P.F.M.C

Re: LICENSE LIMITATION FOR THE SCALLOP FISHERY

We ask that you please consider adopting the final motion made and passed at your February 1997 council meeting as the criteria for future license limitation in the Alaska scallop fishery (outlined in fact sheet #1)

Hopefully you will remember us - Max and Scott Hulse, the scallop fishermen with ten years involvement owning and fishing three different vessels, 1982 - 1997. During our testimony at your February 1997 meeting, we discussed with you our unique vessel length problem as our present vessel was built before Jan. 20, 1993, the date the council restricted vessel length.

The data in the two attached fact sheets might be of interest to you. We plan to present similar information for consideration at the October council meeting.

Fact Sheet #1. The council's last approved motion regarding criteria for future scallop license limitation -- February 1997 meeting.

Fact Sheet #2. Historic data of fishermen and their vessels during qualifying years and recent participation along with other petinent information.

Thanks for your consideration.

Max & Scott Hulse

Fact Sheet #1 Criteria for license limitation system.

These alternatives were recommended by the AP and put in a motion by Linda Behnken with a dredge size restriction by Wally Pereyra at the February meeting. The motion was then approved by the council.

- Alternative 4 Holders of either Federal or State moratorium permits that used their moratorium permits to make legal landings of scallops in 1996 or 1997 would receive a license. The federal or state moratorium qualification period would serve as the historic qualifying period and the years 1996 and 1997 would serve as the recent qualifying period.
- Option 1 C. No area endorsements. All licenses are statewide. However, license holders who never made a legal landing of scallops from outside Cook Inlet during the qualifying periods would be restricted to a single 6 ft. dredge in all areas (e.g. restricted and unrestricted licenses).
- Option 2 C. Maximum vessel length would be restricted to 120% of the LOA of the vessel on which the permit was used in 1996 or 1997 on or before December 31, 1997. If a permit was used on more than one vessel in 1996 or 1997, maximum LOA would be calculated using the longest vessel.
- Option 3 B. Licenses would be issued to current moratorium permit holders for those permits that were fished in qualifying years 1996 or 1997.

#### If the above alternatives are adopted:

- (1.) Seven or eight vessels would be able to fish economically in statewide waters.
- (2.) One state license would bring about a more manageable system.
- (3.) La Brisa's length problem would be solved (Option 2, C.)
- (4.) License holders who never made a legal landing of scallops from outside Cook Inlet during the qualifying periods would be restricted to a single 6' dredge in all areas.
- (5.) Licenses would be issued to the fishermen with the most equity in the fishery.

Note: Participation in 1998 would <u>not</u> be considered for qualifying under these alternatives.

Fact Sheet #2 Historic data of involvement during moratorium qualifying years and recent participation along with other related information.

This data is based on the council adopting the alternatives on Fact Sheet #1 as the future license limitation system -- only moratorium permit holders that used their permits in 1996 or 1997 would qualify for a future license.

			EST. LENGTH	DREDGE
VESSELS	YEARS INVOLVEMENT	MOR, LICENSE	(incl. 20%)	RESTRICTION
1. PURSUIT	18 y r - 1980-1997	STATEWIDE	116'	UNRESTRICTED
2. LA BRISA WAYWARD WIND SHAYLEN NICHOLAS	10 yr - 1982-1988 1994, 1996 - 1997	STATEWIDE/ COOK INLET	78'	UNRESTRICTED
3. OCEAN HUNTER	9 yr - 1980-1981 1983-1986 1993, '94, '97	STATEWIDE	128'	UNRESTRICTED
4. PROVIDER	9 yr - 1989 - 1997	STATEWIDE	128'	UNRESTRICTED
5. CAROLINA BOY	5 yr - 1993 - 1997	STATEWIDE	106'	UNRESTRICTED
6. CAROLINA GIRL	5 yr - 1993 - 1997	STATEWIDE	106'	UNRESTRICTED
7. FORUM STAR	4 yr - 1990. '93. '94, '97	STATEWIDE	115'	UNRESTRICTED
8. NO. EXPLORER	4 yr - 1993, '94, '96, '97	COOK INLET	78'	
9. KILKENNY	4 yr - 1993, '94, '96, '97	COOK INLET	94'	6 FOOT DREDGE
10. ALASKA BEAUTY	3 yr - 1993, '94, '96	COOK INLET	114'	6 FOOT DREDGE





North Pacific Fishery Management Council 650 West 4 th Avenue Suite 306 Anchorage AK. 99501- 2252

Dear Sir,

Comments on Amendment 4 TO THE FISHERY MANAGEMENT PLAN FOR THE SCALLOP FISHERY OFF ALASKA to establish a LICENSE LIMITATION PROGRAM.

WANCHESE FISH COMPANY supports Alternative 2: The only legal alternative proposed in Amendment 4. All vessels that meet the control date of January 20 1993 receive licenses. Magnuson - Stevens Fishery Conservation and Management Act Section 301 National Standards for Fishery Conservation and management: 98-623 (4) Conservation and management measures shall not discriminate between the residents of different States. etc... Any action other than Alternative 2 violates National Standards by discriminating against East Coast Fishermen that qualified under the January 20, 1993 control date. Adopting any proposed alternatives based on state landings for 1996-97 violate the fair and equitable to all such fishermen;

The Science has not addressed comments entered into the record from Dr. William DuPaul & Dr. James Kirkley or from Consultant James Fletcher Showing that MSY should be in excess of 3 million pounds. Page 2 of this document "More vessels could Participate if ex-vessel prices for scallops, or current annual harvest levels increased." Clearly the Science used for justification of any alternative except Alternative 2 is biased and incorrect. Consider that present regulations of 2 dredges of 15 ft, 4 inch rings and 12 man crew only allow the harvest of mature scallops that have spawned at least twice. Observer data confirms that the decrease in meat size may be due to senescent (growing old) or over crowding. Other assertions page 8 landing decreased in mid-1980's do not reflect that many vessels went into more profitable fisheries during this time frame, or did not scallop the entire season. By failing to grant scientific permits for exploration of new potential scallop grounds and failing to mark the released crabs to verify recapture management has failed to utilize best science, or judgment in utilization of the national resource.

Amendment 3 limited access decisions to federal management dictates that Alternative 2 is the only legal alternative, any other action by council will be challenged.

PO BOX 369

WANCHESE

NORTH CAROLINA

27981

Sincerely,

Joseph Daniels, President Wanchese Fish Co.

Joseph Daniel

919 473-5001

9/25/1998

919 473-5004 FAX



Comments on Fishery Management Plan For the Scallop Fishery off Alaska Amendment 4 License Limitation Program; Amendment 4

Dear Sir.

Council

Anchorage AK 99501

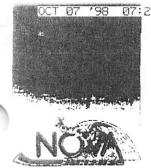
The United National Fishermen's Association Supports only Alternative 2; vessels who held federal moratorium permits get limited access licenses, as is consistent with Amendment 3 passed on June 18/1998 this is consistent with the January 20/1993 control date set by the North Pacific Council. We question the ALLEGED Science page 1 "The scallop fishery off Alaska has been characterized as an overcapitalized fishery " We would suggest that 15 foot dredges 4 inch rings and 12 man crews would indicate a resource that is not being harvested to potential as all harvested scallops have spawned at least twice. Instead we offer a copy of Fishery Journal Published by Yamaha, This should be distributed to the Science committee in order that science becomes part of the North Pacific Councils considerations. Note on page 7 the removal of predators from the scallop grounds as a method of increasing production. Note the increase in production of wild harvest with proper management, the science committee should be asked to explain why production has not increased off the North Pacific Coast? Science should explain why Dr. DuPaul's harvest levels of 3.6 million pounds is not correct, as another consultant put MSY at 3 million pounds. What type of science returns unmarked crabs without markings to the environment to be double or triple counted? Alternative 2 is the only alternative that is authorized under the Magnuson Act, the other alternatives are allocation to a selected few.

The only legal Alternative in Amendment 4 is Alternative 2.

Janus Flatelog Director

Thank You,

James Fletcher director



Oct. 5, 1998

North Pacific Fishery Management Council 605 West 4<sup>th</sup> Avenue, Suite 306 Anchorage, Alaska 99501-2252

Dear Council Members:

Re: Current Market for Alaska Scallops

Nova Fisheries has been marketing Alaska Scallops for the past 10 years and I have been asked to comment on the current market conditions for Alaska Scallops.

In previous years, we have been able to export approximately 40 % of the scallops we received, mainly to Europe, but in 1994 through the Spring of 1997, we were getting a steadily increasing portion of our business from Asia. This stopped completely last summer as the economies of one Asian country after another collapsed. Now we are under severe price competition from the Japanese scallop fishery flooding our market as the yen has fallen against the dollar. The Japanese (Hokkaidó) harvest is 50 times bigger than the Alaska catch and prior to 1997 it had been sold almost completely in Asia.

NOVA Fisheries, Inc. 5309 Shilshole Avenue Northwest Seattle, Washington 98107 USA

TELEPHONE 206.781.2000 FAX 206 7819011





We have been forced to lower the prices to the Alaska scattop boats to an average price of \$6.25 lb versus \$6.75 lb last year and we are still being undercut by over \$2.00 lb on all sizes. This has limited our sales to the U.S. domestic market and it has only been through the loyalty of our food service customers who appreciate the excellent quality of the Alaska scallop that we have been able to maintain our market.

If the world wide economic situation continues to deteriorate and the U.S. economy starts to slow, we can expect further price declines in order to sell the scallops.

Kindly let me know if I can provide you with any further information regarding current market conditions.

Yours Truly,

Blair Culter

# SAFEWAY

**FOOD & DRUG** 



USDA Choice

Valu Pack of 4-lbs. or more.

Giant Sea Scallops

9 to 12 per fb. Previously frozen.



BIG, PLUMP & FRESH

Fresh baked several times daily-right in the store! New York Style Bagels





Beef T-Bone Steak



EXPRES 8/4/98

SAFEWAY ( ) COUPON



## KODIAK FISH COMPANY

104 Center Street, Suite 205, Kodiak, AK 99615 907-486-3309 Fax 907-486-3676

2977 Fox Road, Ferndale, WA 98248 360-366-9131 Fax 360-366-9132 email: teressa@kodiakfishco.com

October 5, 1998

Mr. Richard Lauber, Chairman North Pacific Fishery Management Council 605 West 4<sup>th</sup> Avenue, Suite 306 Anchorage, AK 99501

Re: EA/RIR Amendment 4 - Scallop Fishery License Limitation

Dear Mr. Lauber:

We would first like to remind the Council of the importance of sending this document out for review in a timely manner due to the expiration date of the moratorium currently limiting new entry into the scallop fishery. The federal and state moratoriums on this fishery are set to expire in federal waters in 2000 and in state waters in 2001.

The document enumerates harvests for the scallop fishery at an average of 735,000 lbs for each of 1996 and 1997. The 1998 fishery is still ongoing but the catch so far indicates that this year's total harvest will also be in this range. The effort in the Statewide fishery this year increased by over 20%. The increase came from a vessel that had left the fishery for 1996 and 1997 returning to Alaska from the East Coast to fish full-time for scallops and from a Cook Inlet vessel purchasing a latent federal moratorium permit and entering the Statewide fishery. Both of these actions were undertaken by the owners after the February 1998 Council meeting when the existing alternatives were developed.

Additional economic data of importance in ultimately choosing among the available alternatives is that prices for scallops are reduced over previous year's record levels – particularly for the larger scallops that historically have commanded a premium in the marketplace.

Asian nations are usually consumers of the huge Japanese scallop production; however, currency devaluation and reduced purchasing in Japan and in other parts of Asia have made exports to the United States more profitable this year. Currency devaluation has made it possible for Japanese scallops to be imported with asking prices for 10-15's (10 to 15 meats per pound – equivalent to Alaskan products of 10-20 meats per pound) fob Seattle at \$5.85/lb. Earlier this year, Japanese imports were already doubled from the 1997 level. Japanese scallop production in 1997 was about 45,000 metric tons of meats – compared with the expected production this year from Alaska of about 330 metric tons of meats. Our buyers are trying to support our prices as best they can but prices are down over previous years.

Also, the increased participation by a vessel reentering the fishery and a Cook Inlet vessel acquiring a moratorium permit to fish Statewide has increased the capitalization in this fishery this year. Taken together, reduced price and reduced harvests also reduces the number of vessels that can breakeven in this fishery. We believe these factors should be important elements in selecting an alternative from those presented in this document and in making any changes to these alternatives based on new participation.

On the question of Cook Inlet being separated from Statewide licenses, we believe the Council should look closely at the size of vessels fishing in Cook Inlet and their capability to increase

capacity. We do not have any issues with the vessels fishing in Cook Inlet being able to fish in the Statewide fishery if kept at their current capacity. However, we do have a problem with this if these vessels are permitted to become full-time scallopers by dint of having landed a few scallops in the 20,000 lbs Cook Inlet fishery over the past few years. We believe strongly that this so-called small boat fishery should be able to fish in Statewide waters only with the same gear restrictions imposed when they earned their right to the Cook Inlet license. I understand that these vessels have serious concerns about the cost of observer coverage in fishing outside of Cook Inlet. Currently, the State exempts them from observer coverage in their Cook Inlet fishery due to the gear limitation and the proximity of the fishery to a dock easing concerns about "unreported" landings from this fleet. I would suggest that perhaps the Board of Fish would also provide exemptions from some of these expensive and onerous requirements if these vessels were only permitted to use the one six foot dredge that is regulation in Cook Inlet.

In fact, one moratorium permit holder with a Cook Inlet endorsement only is preparing to list the permit for sale for \$100,000 with a Seattle broker "as soon as the Council makes it a Statewide permit." He thought the broker might know of an East Coast scallop boat that would want the permit given the way things are going back there. The current owner would qualify for a license but hasn't fished scallops the last two years because the vessel is busy with other things.

We wish we had other things to be busy with. Since 1994, we have not broken even with our vessel. And this year, even though we did shipyard work immediately before the fishery began in July, we had a compressor break down which cost us a week of fishing in the peak of the season. It isn't good for any system on board a boat to be in disuse for eight months of each year – regardless of how attentive the owner is. Mark worked on that boat virtually every day of those eight months but it still doesn't take the place of having systems running and working.

License limitation is undertaken to address over capacity problems. Our hope would be that capacity could be reduced but, barring that unlikely event, it is crucial to our economic survival that new capacity and the potential for increasing current capacity is capped once and for all. This would apply to vessels fishing Statewide as well as those fishing Cook Inlet. Continuing to create special exemptions and conditions to take care of special circumstances is well and good if the circumstances are indeed special. I would hope that the Council will scrutinize all of these requests closely. It may seem meaningless to add one more boat to a list given the numbers the Council is used to dealing with; but in our fishery, one boat equals 10-15% of total effort. In addition, an increase in capacity from 350 horsepower to 1200 horsepower makes a non-marketable permit attractive to potential buyers. I would not suggest that this is anyone's intent but assuming it isn't a consideration is imprudent.

Thank you for the opportunity to comment.

Sincerely,

Teressa Kandianis

## imports depress scallop price

By MARK BUCKLEY

Mirror Writer

In the latest round of competition from aquaculture, Alaska's scallop fishermen are seeing prices drop as imported scallop meats flood the market. Farmed scallops and a new extruded scallop product are available in record amounts.

"Scallop prices have dropped \$1-1.50 per pound, depending on size and count, from last year," says Jeff Barnhart, statewide scallop fishery biologist with the Dept. of Fish & Game in Kodiak. "There have been a lot of cultured scallops coming in from Asia and I understand there is also a new, extruded product made from calico scallops that's coming in from South America."

The U.S.-based World Agricultural Outlook Board, which keeps an eye on global food production trends, backs Barnhart up.

Using the most recent figures available, the board says scallop imports are shooting ever upward.

"The U.S. scallop imports were valued at \$198 million in 1996, 14 percent higher than the previous year," the group's aquaculture report says. "Larger shipments from China contributed to the increase. China is rapidly expanding its farmed scallop industry, based on bay scallops imported from the U.S."

Barnhart says although Alaska's scallop stocks are healthy, a more conservative management plan means quotas are dropping. Last year the fleet harvested 786,000 pounds of meats valued at \$5.1 million. This year the harvest is estimated to come in at 730,000 pounds, bringing \$4.4 million to the

fishermen.

Although ex-vessel prices are going down, scallops are still far from cheap.

"Right now Alaska fishermen are getting between \$5.75-6.50 per pound for shucked meats," Barnhart says. "There are four boats working the grounds in the two Kodiak areas that remain open, and another four boats are working east of Yakutat."

Barnhart says the imported products come in two varieties, each designed to compete effectively in the marketplace.

"I'm told the farmed scallops are a beautiful product," he said. "They're individually quick frozen and are very clean.'

In contrast, Alaska's wild scallop harvesters freeze their shucked meats in blocks, which usually contain bits of shell and grit.

The South American products are also attractive, and are affecting prices on the high end of the scallop spectrum, Barnhart notes.

"Scallop prices are determined by the count, or number per pound," Barnhart says. "The fewer per pound, that is, the bigger they are, the higher the price.

"I'm told the South Americans take calico scallops, which are tiny, and mechanically shuck them." he says. "Then they run the meats through an extruder using some kind of a binder to produce large 'scallops,' which sell for a higher price.

That's affecting the prices the fishermen get for the largest scallops," he adds. "Prices for those have dropped \$1.50 per pound."

KDM 9-25-98 OCEANIC RESEARCH SERVICES. INC.

got i can

P.O. BOX 192 E AK. 99725

~PHONE: 907/479-5426 FAXT: 907/479-5425

1 October, 1998

Mr. Richard Lauber **NPFMC** Suite 306 605 West 4th Ave. Anchorage, Ak. 00501

Dear Mr. Lauber.

I am unable to attend this meeting due to family complications so I have asked Mr. Steve Davis to read this letter into the record. I own the "Northern Explorer". We fish mostly in Cook Inlet, but because of the change of the season openings, we are able to fish at Yakutat and some areas of Kodiak. I bought a valid Federal scallop permit this year which allowed us to fish in Federal waters. We used that permit to fish in the Yakutat and the Kodiak areas.

I am concerned about Alternative 4. I feel that the Council should amend Alt. 4 to include 1998. If Alt. 4 is suppose to serve as the "current qualifying period", legally 1998 has to be included. It only stands to reason and common sense to include the present year during the qualifying period. If Alt. 4 does not include 1998, my permit will not become valid

and I would not be able to fish in Federal waters.

The other issue I wanted to bring to your attention are parts of Option 1. Option 1, C needed at present. The only vessel that qualifies for that restriction has left for New

Zealund. We prefer Option B. where there is no area endorsements.
In closing I want to urge the Council to amend Alternative 4 to include 1998 in the qualifying period as this would allow us to utilize the permit that we bought. Thank you for your time.

Sincerely.

William Kopplin

President

D - 5

## Alaska Fisheries Conservation Group

Bering Sea Crab Vessel Owners from Washington, Oregon and Alaska

P.O. Box 910 Woodinville, WA 98072

(425) 488-7708

Fax (425) 823-3964

October 11, 1998

Mr. Rick Lauber, Chairman North Pacific Fishery Management Council Anchorage, AK

Dear Rick,

Our presentation before the Council today will show that there is verifiable proof that your Length-based Analysis (LBA) model for Bristol Bay red king crab assessment needs correction and improvement in order to provide the crab industry with "the best scientific information available", as mandated by National Standard 2 of the Magnuson-Stevens Act of 1996.

For the record, we request that the Council direct its federal and state crab managers to hold

- 1. a special meeting, open to public observation but not involvement, to discuss why the LBA model's 1997 predictions were so inaccurate
- 2. a meeting with the crab fleet and crab processors to explain which variables or assumptions in the LBA model caused the errors, what specific improvements have been made to date and what new predictions the improved LBA model now makes about future red king crab abundance in Bristol Bay.

We ask the Council to be pro-active in restoring the credibility of its LBA model so that crab fishermen and processors can have confidence that your management of the Bristol Bay red king crab fishery actually is based on the best scientific information available to you at this time.

Sincerely

Tom/Casey, Executive Director

## Alaska Crab Update

By Tom Casey

September 2, 1998

## Alaska Board of Fisheries' King Crab Rebuilding Plan Badly Flawed

Evidence from this summer's Bering Sea crab survey by NMFS now shows conclusively that ADFG biometricians in Juneau totally miscalculated the stock abundance of Bristol Bay red king crab and the Alaska Board of Fisheries unnecessarily cut the exploitation rate in that fishery from 20% minimum down to 10% for the past two seasons

Now comes the \$75-million question: Is the Alaska Board of Fisheries and ADFG Juneau mature enough and responsible enough to admit their mistake and correct it promptly?

First, the Evidence.

1. One year ago, ADFG Juneau published STATUS OF KING CRAB STOCKS IN THE EASTERN BERING SEA IN 1997 by Jie Zheng, Gordon H. Kruse and Margaret C. Murphy. In the Bristol Bay red king crab section of the report they stated that

"It is conceivable that total stock abundance may show some slight continued increase in 1998 as the remainder of the 1990 year class is recruited. However, it may be more likely that the stock will show little change or a slight decrease in numbers in 1998."

2. Zheng, Kruse and Murphy also wrote in that same report that

"Our current harvest strategy (which cut the exploitation rate from 20% minimum down to 10%) for Bristol Bay red king crabs is designed to promote stock rebuilding so that the ESB (Effective Spawning Biomass-a key measure of the crab stock's reproductive capacity) can achieve the 55-million pound level in the not-so-distant-future."

3. But how many years did Zheng, Kruse and Murphy estimate that it would take to rebuild the Bristol Bay red king crab fishery to the 55-million pound level?

"It is <u>unlikely</u> that the 1990 year class alone will rebuild the Bristol Bay red king crab stock itself, but hopefully subsequent progeny from this increased spawning stock and the next turnaround in environmental conditions will provide for another burst of recruitment toward the <u>end of the first decade of the</u> next century (2008)."

4. Zheng, Kruse and Murphy even published a Probability Chart earlier which showed that it would take more than 49-years to rebuild the Bristol Bay red king crab stock to the 55-million pound ESB level, even if the exploitation rate were cut from 20% minimum down to 10%. Probabily (%)

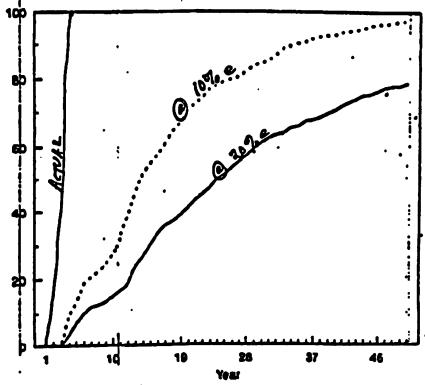


Figure 5. Probability of rebuilding Bristol Bay red king crab to the effective spawning bidmass o (55) nillion pounds over a 50 year planning horizon for the current harvest strategy (solid line) and the rebuilding strategy (dotted line).

- 5. As you can see,
  - A. Years are counted along the horizontal axis. (1997 = Year 1)
  - B. Probability of reaching 55-million pounds of ESB is measured along the vertical axis. 100% probability = 55-million pounds of ESB.
  - C. The dotted line is Zheng, Kruse and Murphy's guess of how soon the stock would recover to 55-million pounds of ESB, if the crab fleet is held down to just a 10% exploitation rate.

    Answer: 49 to 50 years
  - D. The solid line is their guess of how soon total stock recovery would occur if the fleet continued fishing at the 20% minimum exploitation rate.

    Answer: 75 to 100 years
  - E. The vertical line labeled "Actual" is what really happened.

    That is, total rebuilding to ESB = 55-million pounds occurred in just 1-year.
- 6. So how did their Doom and Gloom forecast turn out? Hallelujah, Hallelujah, miracles do occur after all. Just one 1-year later on August 26, 1998, ADFG announced that

"The effective spawning biomass (ESB) is estimated to be <u>56.3-million pounds</u>. This is above the 55-million pound rebuilding threshold established by ADFG and the Alaska Board of Fisheries in the King Crab Management Plan."

In other words, Zheng, Kruse and Murphy could not have been more wrong if they tried. Instead of 49-years to fully rebuild the Bristol Bay red king crab stock, it took only 1-year.

- 7. So how soon do you think Zheng, Kruse and Murphy will publicly admit that
  - A. they completely miscalculated the status of the Bristol Bay red king crab stock
  - B. the exploitation rate for this fishery never had to be cut below 20%
  - C. the only honorable and professional thing for them to do under these circumstances is to resign from all federal crab management programs, especially in the Bering Sea and the Aleutian Islands.
- 8. And how soon do you think that the Alaska Board of Fisheries (ABF) will admit Zheng's, Kruse's and Murphy's magnum error and reinstate the 20% minimum exploitation rate in the Bristol Bay red king crab fishery?
  - A. AFCG has resubmitted that proposal to the ABF for their March 1999 meeting.
  - B. ABF could take emergency action in September or October to do so and the 1998 GHL would increase from 15.8-million pounds to 21-million pounds.
  - C. Since the NPFMC is responsible for Bristol Bay red king crab management, we will ask them at their October meeting to reevaluate their LBA model and direct NMFS and ADFG crab biologists to make the necessary corrections to produce the best scientific information available.
- 9. But you can anticipate that ADFG crab biologists will try to bluff the NPFMC into thinking that the LBA model and the Alaska Board of Fisheries' new king crab harvest strategy (now 2-years old) have produced the substantial increase in total stock abundance that the NMFS crab survey found this summer. Since most Council members know that it takes at least 7-years for male red king crab to reach legal size, I don't think ADFG will get away with it.

## RESULTS OF THE 1997 MMFS BERING SEA CRAB SURVEY EXECUTIVE SUMMARY

This section summarizes data presented in the Report to Industry on the 1997 Eastern Bering Sea Trawl Survey. Numbers presented are trawl survey indices of population level and do not necessarily represent absolute abundance. For further information, contact Dr. Robert S. Otto or Dr. Bradley G. Stevens, NMFS, P.O. Box 1638, Kodiak, AK 99615. Phone (907) 487-5961. (GHL = Guideline Harvest Level.)

Red king crab (Paralithodes camtschaticus) Bristol Bay.

Legal males:

9.3 million crabs; 66% increase.

Pre-recruits:

Large Females:

8.9 million crabs; 154% increase. 24.9 million crabs; 109% increase.

Outlook:

Increased abundance of legal males is within the error of the survey and is probably not due to recruitment. The Alaska Department of

Fish and Game estimated abundance at 5.9 million legal males; for this reason the GHL was set at an intermediate level with an exploita-

tion rate of 10 %. However, abundance of prerecruits has increased due to growth of a strong year class which should start to reach legal

size in 1998 and result in a significantly increased fishery in 1999.

7.0 million lbs (3,180 metric tons, mt). Fishery opened November 1.

GHL:

Red king crab (P. camtschaticus) Pribilof District

Legal males:

1.1 million crabs; 149% increase.

Pre-recruits:

0.6 million crabs.

Large Females:

1.0 million crabs; 11 % increase

Outlook:

Legal and pre-recruit male crab are concentrated at few stations, and index has very low precision. Females and small males are poorly estimated. The series of both survey and fishery data indicate a long-term population decline. Historically, red king crab are relatively rare in the Pribilof Islands and are usually harvested as incidental catch in

the blue king crab fishery.

GHL:

Fishery combined with blue king crab in 1997.

Pribilof Islands blue king crab (P. platypus) Pribilof District.

Legal males:

0.8 million crabs; 32% decrease

Pre-recruits:

0.4 million crabs; 52% decrease.

Large Females:

2.5 million crabs; 46% decrease.

Outlook:

Population is low and trends are not easily detectable.

GHL:

1.5 million lbs (681 mt) of red and blue king crabs (see above).



## **NEWS RELEASE**

### ALASKA DEPARTMENT OF FISH & GAME



STATE OF ALASKA
Department of Fish and Game
Frank Rue, Commissioner

Westward Region 211 Mission Road Kodiak, AK 99615

Robert C. Clasby, Director Division of Commercial Fisheries

Contact: James A. Spalinger Regional Shellfish/Groundfish Management Biologist

**IMMEDIATE RELEASE** 

Date: August 26, 1998

#### ATTENTION BRISTOL BAY KING CRAB FISHERMAN

The Alaska Department of Fish and Game and National Marine Fisheries Service have completed analysis of the survey results for Bristol Bay red king crab. Population and biomass estimates for Bristol Bay red king crab have been computed from the survey data using the department's length-based analysis. An overall guideline harvest level (GHL) of 16.4 million pounds for the Bristol Bay red king crab fishery has been established. A total of 3.5% of this GHL will be reserved for the CDQ fishery as follows:

BRISTOL BAY
BRISTOL BAY

commercial fishery

·CDQ

15.8 million pounds
0.6 million pounds

The Effective Spawning Biomass is estimated to be 56.3 million pounds. This is above the 55 million pound rebuilding threshold established in the King Crab Management Plan. An exploitation rate of 15% on mature males as prescribed in the management plan resulted in a guideline harvest level of 16.4 million pounds.

The CDQ harvest projection is based on 3.5% of the GHL. This harvest is estimated to be approximately 600,000 pounds. The actual CDQ harvest level will be based on the total catch from the commercial fishery.

Because the GHL exceeds 12 million pounds, the registration deadline of October 2, 1998 has been waived. The pot limit will be 200 pots for vessels 125 feet or less in overall length and 250 pots for vessels over 125 feet in overall length. The Bristol Bay red king crab fishery will open at 4 PM November 1, 1998. For further details contact the Alaska Department of Fish and Game at 486-1840.

## OVERVIEW OF POPULATION ESTIMATION METHODS AND

## RECOMMENDED HARVEST STRATEGY FOR

## **RED KING CRABS IN BRISTOL BAY**



By

Jie Zheng, Margaret C. Murphy, and Gordon H. Kruse

Regional Information Report No. 5J96-04
Alaska Department of Fish & Game
Commercial Fisheries Management and Development Division
P.O. Box 25526
Juneau, Alaska 99802-5526

February 22, 1996

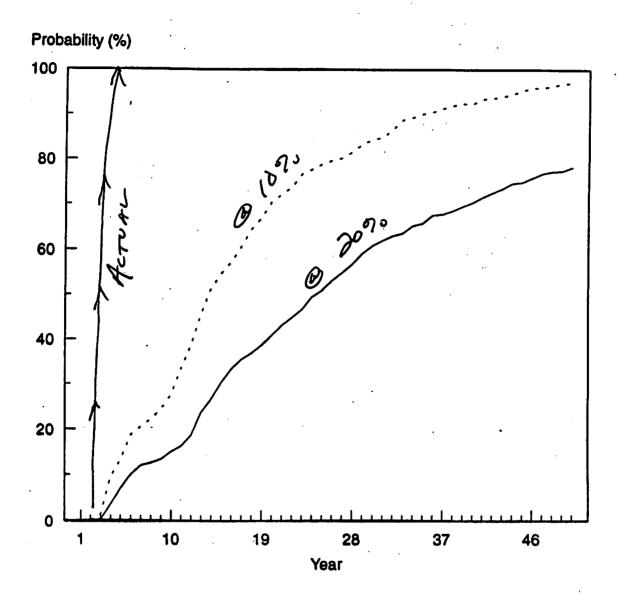


Figure 5. Probability of rebuilding Bristol Bay red king crab to the effective spawning biomass of 55 million pounds over a 50 year planning horizon for the current harvest strategy (solid line) and the rebuilding strategy (dotted line).