QAGAN TAYAGUNGIN TRIBE
P.O. BOX 447
SAND POINT, ALASKA 99661
PHONE (907) 383-5616
FAX (907) 383-5814

September 11, 2017

Chairman John Jensen, Alaska Board of Fisheries
Board Support, P.O. Box 115526
Juneau, AK, 99811-5526
Emailed via pdf attachment to dfg.bof.comments@alaska.gov

Re: Requesting the Board of Fisheries Reject Agenda Change Request 12

Dear Chairman Jensen,

The Qagan Tayagungin Tribe (QTT) of Sand Point is a federally recognized tribe in rural Alaska, located in the Shumagin Islands, off the Alaska Peninsula. The purpose of the Qagan Tayagungin Tribe is to provide for the self-government and quality of life for our membership through social, economic, education, health, and cultural services and programs. As you likely know, the health and wellbeing of our local fisheries is of the utmost importance when it comes to providing for the economic, health, and cultural wellbeing of the tribe and our citizens.

As the governing body of the Qagan Tayagungin Tribe, the Tribal Council hereby urges the Alaska Board of Fisheries to reject ACR 12 at your October 17-19, 2017 Work Session. This ACR does not meet Board criteria found in 5 AAC 39.999, for approving an agenda change request.

At the February 2016 Board meeting, the Board of Fish encouraged salmon fishery stakeholder groups from the South Alaska Peninsula area and Chignik area to find a compromise solution to restrict commercial fishing in the Dolgoi Island Area. Stakeholders were asked to do this in order to allow additional sockeye salmon to potentially travel to Chignik, while still allowing harvest opportunity for South Alaska Peninsula fishermen. The new regulations were in place for the 2016 & 2017 salmon seasons.

ACR 12 proposes to radically change the mutually agreed upon Doloi Island Area regulations. ACR 12 is predominately allocative and therefore should not be approved at this time. The Qagan Tayagungin Tribe believes this ACR does not meet the Board's criteria for accepting an ACR:

- There is no fishery conservation concern. This new regulation established only last year is working as conceived. Dolgoi fishing is restricted and Chignik escapement goals have been met.
- There is no error in the regulation – the Board was diligent in transmitting the compromise proposal into regulations, and the Department has been careful to enact the rules as written.

- There were no unforeseen effects on the salmon fisheries from this regulation. Both the 2016 & 2017 salmon seasons were unique and surprising, but not as a result of these regulations.

There are plenty of problems with this ACR, however the Qagan Tayagungin Tribe encourages you to allow debate on the merits of the proposal during the next meeting cycle, when it would regularly come up. At the February 2019 Alaska Peninsula/Chignik Fishfish meeting, the Board will have three years of data under the new regulations to better inform the next decision on this issue.

In conclusion, we respectfully request the Alaska Board of Fisheries reject ACR 12 at the 2017 Work Session. Thank you for the opportunity to provide written comment.

Sincerely,

David O. Osterback
President

PC102
1 of 1

Quinnan McWethy
PO Box 8552
Kodiak AK 99615
907 942-5567

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
PO Box 115526
Juneau, AK 99811

RE: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

To Fish Board,

I am opposed to the UCIDA agenda change dealing with Kodiak Salmon stocks. There is not enough years of sampling to make it an emergency.

I'm a second generation salmon seiner, I'm 25 years old and have been running a boat for 4 years.

I bought my first boat last through the Alaska Dept of Economic Commerce last year. A change in the agenda with a crippling decision could harm my ability to pay back my loan.

A change in the openings will reshuffle the seine fleet and will upset how, when and where we harvest salmon. Boats could pile up in unconventional areas and create chaos.

Any change needs much more scientific data. Please take into consideration the limits of this study and gather more information before you make any changes to the agenda.

Sincerely,

Quinnan McWethy

Raymond May

PO box 8985

Kodiak, AK 9915

09/29/2017

Chairman John Jensen

Alaska Board of Fisheries

PO Box 115526

Juneau, AK 99811-5526

RE: UCIDA Agenda change request

I would like to express there should not be any agenda change requests for Kodiak Management Area. do not believe it meets the criteria for agenda change request. There is no regulation that needs correcting. The genetic stock composition study does not show any new information that corrects an effect on the fishery that was unforeseen when the management plan was adopted.

My family and I have roots on Kodiak Island well before Statehood. Our families have fished the Kodiak archipelago for decades. Fishing around Kodiak Island both commercially and Subsistence is our way of life.

The agenda change request would set a bad precedent to try dismantle one areas fishery to try to enhance another area fishery. I think that Cook Inlet fisheries should look at issues within their own area before trying to attack another area out of Board of Fish cycle.

Sincerely

Raymond May

Richard and Amanda Roth
F/V Kelly Girl
39142 Suchaview Road
Homer, Alaska 99603

September 29, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
P.D. Box 115526
Juneau, AK 99811-5526

Re: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

Chairman Jensen,

Thank you for the opportunity to comment. I firmly OPPOSE the UCIDA agenda change request because it does not meet the Board's agenda change request criteria as the Kodiak Management Area genetic stock composition study does not present new information correcting an effect on the fishery that was unforeseen when the management plan was adopted, nor does Cook Inlet sockeye caught in Kodiak present a conservation concern or have conservation purpose or reason. In fact, it could have adverse conservation effects on local Kodiak runs.

I have been fishing in Kodiak for the last 16 years as part of a family salmon seining business. I have been operating my vessel as captain for 7 years. My wife and two children also participate in the family fishing business both on my boat and as shore support. We employ at least three crew members every year, and do all of our boat work in Homer using local marine trades and supply stores. I have fished my entire salmon career mostly on the West Side of Kodiak, most years I do not even leave the West Side. Our family's livelihood and that of our crew - some of which live in other Kenai Peninsula communities - depend on the viability and availability of West Side fishing grounds as that is where my fishing experience and expertise lies as well as our Processor, Icicle Seafoods.

This agenda change request is not tied to any assessment of the annual percentage of Cook Inlet sockeye incidental catch in any of the management areas targeted. It also does not address natural variability in either Kodiak or Cook Inlet sockeye runs. Most importantly to me as a West Side Kodiak salmon fisherman is the drastic impact on fishing of local stocks. For example, forgoing harvest of local sockeye will cause over-escapement, fleet movement and proposed closures would reallocate catch between local gear-types and local Pink and Dog harvest being limited to inner bays will result in lower quality of catch for Processors and

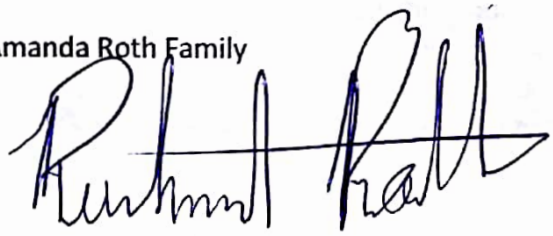
potentially lower salmon prices for Kodiak fishermen which are already often lower than the prices that Cook Inlet fishermen receive.

This sets a dangerous precedent, completely disrupting one area's fishery to slightly, if at all, provide gains in another area's harvest. Salmon are considered common property and do not belong to the management area where they are born. If Kodiak is regulated for the presence of Cook Inlet sockeye then, for example, will the Board also place regulations on Chignik and Area M for the take of Kodiak Sockeye and Pinks? We do not wish, nor expect, such a burden placed on our neighbors.

This Proposal does not take into consideration the economic costs to Kodiak salmon fishing families, Processors, processing workers, or Alaskan coastal communities that benefit from the income of Kodiak salmon fishermen. This UCIDA agenda change request, that does not meet BOF criteria for presenting new information that has unforeseen conservation effects on a fishery would have enormous negative economic and conservation impact. I hope that the Board sees that there is no error in the regulation that needs correcting.

Thank you for your careful consideration,

Richard and Amanda Roth Family
F/V Kelly Girl



Robert E. Fellows

P.O. Box 1065

Homer, AK. 99603

September 20, 2017

Chairman John Jensen

Alaska Board of Fisheries

Boards support section

P.O. Box 115526

Juneau, AK. 99811-5526

RE: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

This letter is in opposition of the UCIDA agenda change request. That request does not meet the board's criteria for that action. The genetic stock composition study does not present any new information. There is no conservation concern and no regulation that needs correcting.

I have been fishing in the Kodiak area for over 30 years and commercial salmon fishing there for 28 years. I, my family and my crew depend on the Kodiak area salmon fishery for the majority of our yearly income. I have built my fishing business over those years with strong consideration of the consistency of the Kodiak area management plans. They are some of the longest standing in the state and they work well for all stakeholders.

There are many adverse affects this request could bring about. The most severe being the economic impact to several hundred fishermen and families in the Kodiak management area and the businesses that support them.

Sincerely,

Robert, Lisa, Anna, Larsen, and Malina Fellows

Robert B Lindsey
3162 Spruce Cape Road,
Kodiak, Alaska 99615

October 3, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
P.O. Box 115526
Juneau, AK 99811-5526

RE: UCIDA Agenda Change Request and
Genetic Stock Composition of Sockeye Salmon in
the Kodiak Management Area

I oppose the UCIDA agenda request on the basis that there is no "new" information contained within, rather it is newer science presented using the same statistical analysis. It seems short sighted to apply the genetic information presented for one relatively small sampling to apply statistically to the whole of the KMA. Therefore it does not correct an unforeseen effect that was created when the existing regulation went into effect.

I have been involved with the Kodiak salmon fishery since birth, being born to a local fisherman and growing up on canned salmon and rice. I have participated as a salmon fisherman approximately 35 years, from age 8-30, and again from age 45-56. I've fished Kodiak, Prince William Sound and Chignik as a salmon seine deckhand, skiffman, skipper, vessel owner and permit holder. I have planned my life for the last 15 years around securing a small pension so that I could pursue Salmon fishing as a viable income after I retire, because I want to raise my grandchildren in the same fashion as my childhood. I see this out of order Agenda change as a threat to this way of life.

One of my fears greater than the rest is the precedent setting possibility of this agenda change gaining traction creating a Pandora 's Box regarding the established method of the boards use of authority. This year in particular saw a lot of fish showing up in unanticipated numbers in unexpected locations. Particularly with regard to pink salmon, will the high numbers caught in Area "M", and Chignik Management areas now trigger a review of allocation of pink stocks take that could possibly have been bound for Kodiak or PWS? UCIDA's letter hints strongly at revisiting or challenging current Chinook catch issues, will this be the next challenge raised by them or another similar user group?

It seems to me the board is getting drawn into an allocative arena, which takes away from the original intent that created the Limited entry process. In my opinion the Alaskan model which was established to provide a limited total number of participants and in no way sought to allocate catch by user group, but for maximum long term resource viability has proven to be a far more fair and equitable structure than the Federal quota system model.

While limited entry has stood the test of time we see the ongoing effects of the federal system continuing to devastate the traditional way of life in Alaskan communities. Please do not be drawn into a user group allocation dilemma.

Even a casual consideration of the sea change this creates reveals obvious and unavoidable problems such as underutilized/ loss of quality salmon in the KMA due to restricted access as a by product of this proposal. How then does the board go back and rectify a possible greater impact created by UCIDAs proposal? One of the huge glaring omissions (of UCIDA's data) is the improved runs in the Karluk due in no small part to KMA attention of overescapement. At what point do one groups demands warrant the possibility of creating the demise of another areas salmon stock?

While I'm no biologist, I can say that a guy would starve in this fishery if all he focused on was the Cook Inlet fish. The other side of that coin is there's no way you can guarantee that even if you closed the whole island, could you guarantee no CI fish would be caught. They just pop up where conditions are right and I don't think (especially with all the strange run patterns lately) that is wise to consider massive new restrictions that have no basis in any new data. 6,000 years ago there was probably some local indigenous person here happily surprised to catch a Cook inlet fish.

Try as I might I cant see a conservation issue served by this proposal.

Sincerely yours,

Robert B. Lindsey

Submitted By
Robert Munsey
Submitted On
9/30/2017 9:49:22 AM
Affiliation

I oppose the UCIDA agenda change request because the latest genetic stock composition study doesn't supply any new information. Also this was a genetic not allocative study and should not be used for allocative purposes.

I have been set net fishing on the west side of Kodiak for the past 40 years.June 23rd to July31st is an important time for me. The Karluk sockeye run can still be productive, sockeye are returning to Telrod Cove, and the west side pink run is increasing. Mandatory closures- that are not related to Kodiak salmon- during this time could be devastating for fishermen and salmon managers.

I think we have to be very careful about making allocative decisions. We can't predict the route salmon take back to their home stream, so we've all caught fish bound for a different area. To make laws to try to prevent this would- in my opinion- be impossible and would make salmon management much more difficult.

Thank-you, Robert Munsey

Chairman John Jensen
Alaska Board of Fisheries
Sept 25,2017
Against ACR #11

My name is Ron Kavanaugh, Kodiak Resident since 1966. Engaged in the Kodiak Salmon Fisheries since 1975, our family is 100% dependent on commercial fisheries in the Gulf of Alaska & holds multiple S01K permits. I own and operate the 58 ft limit Seiner Sylvia Star and the 58 ft, FV Insatiable. I strongly oppose Agenda Change Request #11 as it is out of cycle and honestly brings no new or surprising information that merits the Kodiak Area Salmon Management plan being rewritten in such a reactionary and broad manner. My family participates in cape fisheries from Igvak to North Afognak with a vessel that was purpose built with heavy gear designed for cape fishing.

Some years I fish the Shelikof corridor from early June through late August depending on pink salmon abundance. The Shelikof has always been a mixed stock fishery; and based on Mother Nature's whims, this fishery can produce little to no Cook Inlet fish or the exception of a high interception rate as shown in 2015. I believe this anomaly in 2015 was a result of high water temperatures. This condition seemed to keep the fish circulating in the Shelikof corridor for an extended amount of time before continuing to their destination

That being said, I find it very troublesome that ACR #11 seeks changes with disregard to the impacts on salmon stocks in the Kodiak Management Area. These changes would severely disrupt the Department's ability to provide harvest opportunity on Shelikof stocks.

If implemented as outlined, this proposal would dramatically change traditional fishing areas and put a large amount of gear into the inner bays creating both gear conflicts and overcrowding.

At a time when the State should be maximizing its natural resources, this ACR runs a real risk of preventing the full utilizing of sockeye returning to Kodiak. As you move a fishery into bays, you also lessen the quality of local pink and chum salmon. This negates efforts to deliver to the processor the highest quality fish available. A lower quality fish equals lower ex-vessel price equals lower raw fish tax.

I'm sure you will receive over whelming correspondence concerning the economic impact this will have on boat owners, skippers, crew, canneries, processing workers, and the service & goods providers. If implemented I could see this costing me 50% or more of my salmon earnings as our vessel fishes almost exclusively in the affected areas.

In closing, this is a very reactionary and open-ended proposal. It appears the proposer has no real plan, but to initiate actions rewriting the Kodiak Area Management Plan based on their belief that Kodiak is responsible for a lack of fish returning to Cook Inlet with no regard for the negative impact on Kodiak Stocks.

Ron Kavanaugh
1533 Sawmill Circle
Kodiak Alaska 99615
(907)942-0047

October 2, 2017

To: Board of Fisheries
Alaska Department of Fish and Game
Boards Support Section
PO Box 115526
Juneau, AK 99811-5526

Re: EF-F17-067 Request for Board support for CFEC regulatory change

Dear Board Members,

In April of this year we submitted a proposal to allow existing Sitka Sound Sac Roe Seine permit holders to use open pound roe on kelp as an alternative to seining in the harvest of herring eggs from Sitka Sound. The proposal was similar to what was presented to the Alaska Board of Fisheries (Board) during the last cycle in 2014/15. As some of you may recall there is divergence on whether or not the Board had the statutory authority to act on the proposal. There seems to be a circular argument taking place: The Board cannot act on the proposal until Commercial Fisheries Entry Commission (CFEC) makes changes and CFEC will not make changes until the Board acts on the proposal. Interesting to note: The most recent letter indicates the Board cannot dictate gear used as opposed to the administrative area overlap which was previously believed to be the problem.

In continued dialogue with CFEC we continue to be told that CFEC will not act until the Board acts. This has been stated in virtually every memo and exchange the Board has had with CFEC regarding this situation. Why is the Board's council so staunch in an opinion which differs from CFEC's view? Why is it that folks involved in the same process, reading the same statutes, can't arrive at a similar conclusion?

The proposal in question encourages a change which would result in increased fishery value combined with a reduction in the amount of fishing mortality. To anyone tasked with resource management this is a win/win scenario. This proposal offers more value for less resource removal. Why shouldn't the Board have opportunity to approve or deny such a concept? Isn't this what the Board of Fisheries is for?

We have attached documents supporting our position that the Board should be able to act on our proposal. The proposal was never intended for, or submitted to, CFEC as CFEC has made it clear they wish the Board to present a position to them before they will propose regulation. Contrary to CFEC's opinion there is support from Sitka permit holders however; the support letters were submitted to the Board and not CFEC. We believe the proposal in question is a good idea which will improve a fishery. We believe the decision of whether the proposal is carried or fails should be left up to the Board of Fisheries. Please find a way for this proposal to be heard, debated, and decided by the Board.

Thank you for your time.

Regards,

Darrell and Ryan Kapp

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game
BOARDS SUPPORT SECTION
Headquarters Office
1255 West 8th Street
P.O. Box 115526
Juneau, Alaska 99811-5526
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Fax: 907.465.6094
www.boardoffisheries.adfg.alaska.gov

August 2, 2017

Mr. Darrell Kapp
338 Bayside Road
Bellingham, Washington 98225

Subject: 2017/2018 Board of Fisheries Proposal Review

Dear Mr. Kapp:

On behalf of the Board of Fisheries (board) and Department of Fish and Game (department), thank you for submitting a proposal for consideration by the board in the 2017/2018 meeting cycle. Proposals accepted for the meeting cycle are in response to the Call for Proposal that was issued by the board in the fall of 2016. The call sought proposals for regulatory change in Title 5 of the Alaska Administrative Code specifically for finfish in the Prince William Sound Area including Upper Copper and Upper Susitna Rivers, finfish and shellfish in the Southeastern Alaska and Yakutat Areas, and Dungeness crab, shrimp, and other miscellaneous shellfish in all other statewide regions.

As part of the proposal review, the department looks to see if proposals are related to the regulations cited in the call, within the board's statutory authority to act, clear and understandable, and seeking regulatory change. There are occasions when proposals do not meet this baseline review and are not entered into the meeting cycle proposal book.

The proposal you submitted, EF-F17-067, seeks to create a herring pound fishery in Sitka Sound to allow existing herring sac roe permit holders the option of using either gear, or if board authority does not exist, express support for the concept to the Commercial Fishery Entry Commission (CFEC).

The board does not have the authority to determine whichgear will be used by limited entry permit holders. As noted in your proposal that is under the authority of CFEC. The proposal will be added to the board's October 2017 work session work book in the event they care to take up the subject of expressing support to CFEC for this concept. If you would like to provide additional information to the board prior to that meeting, the due date for public comment is October 3, 2017.

Again, thank you for taking a personal interest and direct action in Alaska's fish and game management system.

Sincerely,

Glenn Haight
Executive Director

Ryan Kapp RC100

MEMORANDUM

STATE OF ALASKA
COMMERCIAL FISHERIES ENTRY COMMISSION

TO: **Alaska Board of Fisheries**

Dan K. Coffey, Chairman
Ed Dersham
Larry J. Engel
Grant Miller
Russell Nelson
Virgil L. Umphenour
Dr. John R. White

DATE: January 12, 2000

PHONE: (907) 789-6160 VOICE
(907) 789-6170 FAX

FROM: **Commercial Fisheries Entry Commission**

Marlene Johnson, Commissioner
Mary McDowell, Commissioner
Bruce Twomley, Chairman

SUBJECT: Board Proposals 168, 175 and 174—Optional Open Pounding Alternative for the Southeast Roe Herring Seine Fishery (Sitka Sound)

Board Proposals 168 and 175 would authorize open pounding as an alternative means of harvesting roe herring in the Sitka Sound roe herring seine fishery. Board Proposal 174 opposes the change.

The Board previously considered this issue in January of 1997 (Proposal 441). Our comments at the time (coordinated with those of the Department of Law) remain current today. This memo is a recap.

Since our 1997 communications, (1) the Department has experienced managing the experimental, Sitka Sound open pound fishery authorized by the Board in 1997; and (2) the Board authorized a herring pound spawn-on-kelp alternative for Norton Sound herring limited entry permit holders (both gillnet and beach seine). 5 AAC 27.965.

If the Board were to act favorably on Proposals 168 and 175, the Board should be very clear its action affects only the existing, limited Sitka Sound roe herring purse seine fishery.

In turn, following favorable Board action on Proposals 168 and 175, CFEC would stand ready to propose complimentary changes to its regulations. To adopt such regulations after a public comment period, CFEC would be required to determine independently that the purposes of the Limited Entry Act would be served by doing so.

In particular, CFEC's current definition of the administrative area for the Northern Southeast herring spawn-on-kelp pound fishery includes the area in which the Sitka Sound roe herring purse seine fishery is conducted. *Compare* 20 AAC .230(a) and 5 AAC 33.200(m)(2). CFEC would likely propose

modification of its current definition of the administrative area for the Northern Southeast herring spawn-on-kelp pound fishery to exclude the area included within the Board's definition of the Sitka Sound roe herring purse seine fishery.

In making and considering this proposal, CFEC would be guided by the Limited Entry Act, AS 16.43.200, which reads in relevant part as follows:

> The commission shall establish administrative areas suitable for regulating and controlling entry into the commercial fisheries. The commission shall make the administrative areas reasonably compatible with the geographic areas for which specific commercial fishing regulations are adopted by the Board of Fisheries.
>
> * * *
>
> The commission may modify or change the boundaries of administrative areas when necessary and consistent with the purposes of [the Limited Entry Act].

Generally, the Entry Commission would also be guided by AS 16.43.950, which, in relevant part, provides:

> Nothing in [the Limited Entry Act] limits the powers of the Board of Fisheries, including the power to determine legal types of gear and the power to establish size limitations or other uniform restrictions applying to a certain type of gear. Holders of interim-use permits or entry permits issued under this chapter are subject to all regulations adopted by the Board of Fisheries.

Our regulatory procedure would allow us to meet our responsibility under the Limited Entry Act, and, additionally, help generate public awareness and comment (particularly from members of the public who believe they have interests under the limited entry system that should be addressed). Our procedure creates an opportunity for the commission to clarify potential ambiguity between regulations of the Board and of the commission. The commission must reserve judgment on the issue until it has received public comment.

Bruce Twomley plans to report to the Board on Saturday, January 15, 2000.

If the Board has additional questions during the following Board meetings, at least one of the following individuals will be available by phone at 789-6160: Bruce Twomley, Susan Haymes, or Kurt Schelle.

cc: Frank Rue, Commissioner, ADF&G
Doug Mecum, Director of Commercial Fisheries
Scott Marshall, Regional Supervisor
Diana Cote, Executive Director, Board of Fisheries
Stephen White, Assistant Attorney General

MEMORANDUM

STATE OF ALASKA
Department of Law

To: Glenn Haight
Executive Director
Alaska Board of Fisheries

Date: February 11, 2015
File No.: JU2014200582
Tel. No.: 269-5232
Fax: 279-2834
Subject: **Comments on Proposals for 2015 Board of Fisheries Meeting on Southeast Alaska/Yakutat Finfish Issues**

From: Lance Nelson
Seth Beausang
Assistant Attorneys General
Natural Resources Section
Department of Law

The Department of Law has the following comments on the proposals to be considered by the Board of Fisheries at its 2015 meeting in Sitka on regulations for Southeast Alaska and Yakutat Areas finfish issues.

Proposal 124: This proposal would authorize equal share quotas for participants in the Sitka Sound sac roe herring fishery during years when 70% of permit holders voted in favor of such quotas. This is likely beyond the authority of the board. The board may not delegate its authority to decide how a fishery is prosecuted to anyone other than the commissioner or department, especially when there are expected to be individual fishers who do not favor the quota.

Proposal 126: This proposal would allow herring seiners to opt to use open herring pounds in lieu of their seine gear. Southeast Alaska herring pound limited entry permit holders are generally the only users who can participate in a pound fishery in their administrative area, not seiners. "Herring pound" is generally defined as "an enclosure used primarily to retain herring alive over an extended period of time." 5 AAC 39.105(d)(20). But in Southeast Alaska, a "herring pound" can include an "open pound" which is defined in 5 AAC 27.130(e)(2). The board likely does not have authority to allow additional users into this limited entry fishery without prior action by the Commercial Fisheries Entry Commission (CFEC).

Proposals 131-134: These proposals raise similar issues as in Proposal 126. There are already three permit holders in the Southern Southeast sablefish limited entry pot fishery. 20 AAC 05.320(e). The board likely does not have authority to allow additional users into this limited entry fishery without prior action by the CFEC.

Proposal 148: If the board authorizes community harvest permits, such permits could not be limited to residents of Hoonah or any other particular community.

Proposal 155: This proposal would allow "boat" or "party limits" for sport fishing rather than bag or possession limits that apply to individuals. One consideration

RC 142

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game
ALASKA BOARD OF FISHERIES

1255 West 8th Street
P.O. Box 115526
Juneau, Alaska 99811-5526
Main: 907.465.4110
Fax: 907.465.6094

March 3, 2015

Bruce Twomley
Chairman, Alaska Commercial Fisheries Entry Commission
P.O. Box 110302,
Juneau, AK 99811-0302

Subject: Board of Fisheries Action on Southeast and Yakutat Finfish Meeting Proposal 126

Chairman Twomley:

During the 2015 Southeast and Yakutat Finfish meeting in Sitka this past week, the Board of Fisheries considered Proposal 126, which would allow Sitka Sound herring seine permit holders to utilize open pounds to harvest roe on kelp in lieu of their customary sac-roe herring seine gear.

You may be aware the Sitka Sound herring fishery value has declined somewhat over the past few years with the market price falling below $200/ton.

Also, the Sitka Tribe has encouraged the Board to reduce open fishing area and diminish harvest levels.

In considering Proposal 126, the Board was intrigued that the open pound fishery might provide a potentially higher price-point product to the market.

The Board was advised by the Department of Law that the Board likely does not have authority to allow new entrants to limited entry herring pound fisheries without approval by the Commercial Fisheries Entry Commission (CFEC).

A majority of the Board voted to again consider Proposal 126 next year if CFEC were to re-define the current administrative area for the Southern Southeast herring pound limited entry fishery to exclude Sitka Sound, where it appears no herring pound operations are currently authorized or have occurred there. The Board could then consider authorization of open pound gear as an alternative for sac roe seine permit holders. The CFEC could then ratify that alternative gear for seine permits.

The Board was offered a variety of options by the Department of Law for action on Proposal 126 in light of the inability of the Board to pass the proposal as written, including passing the proposal contingent on eventual approval by CFEC. Not knowing whether or when CFEC might act, the Board found it difficult to craft appropriate language. The Board decided it was more appropriate for the proposer to approach CFEC for approval of this concept before the Board would take subsequent action and allow current seine permit holders the option of utilizing open pound alternative gear.

Accordingly, I am writing to inform you that the Board is open to further consideration of the proposal, and encourages the CFEC to assess the feasibility of acting to allow this fishery when approached by the proposer, Mr. Ryan Kapp.

You may already be aware of this concept as it has been before both the Board of Fisheries and CFEC over the years. We understand that CFEC may need a fair amount of time to make its determination.

Best Regards,

Tom Kluberton, Chairman
Alaska Board of Fisheries

Attached: Proposal 126

CC: The Honorable Sam Cotten, Commissioner ADF&G

THE STATE of ALASKA
GOVERNOR BILL WALKER

Commercial Fisheries Entry Commission

8800 Glacier Highway, Suite 109
PO Box 110302
Juneau, Alaska 99811-0302
Main: 907.789.6160
Licensing: 907.789.6150
Fax: 907.789.6170

May 13, 2015

Tom Kluberton, Chairman
Alaska Board of Fisheries
P.O Box 115526
Juneau, AK 99811-5526

Re: Board of Fisheries Action on Southeast and Yakutat Finfish
Meeting Proposal 126

Dear Chairman Kluberton:

I am sorry for the time that this response to your March 3, 2015 letter has taken. CFEC and I have had much more than the usual interruptions during the intervening period.

You called our attention to Board Proposal 126, which appears to be intended to authorize open pounding as an alternative means of harvesting roe herring in the Sitka Sound roe herring seine fishery.

An issue arising from the proposal is that CFEC's current definition of the administrative area for the Northern Southeast herring spawn-on-kelp pound fishery includes the area in which the Sitka Sound roe herring purse seine fishery is conducted.

Your letter suggested the following approach:

> The Board was advised by the Department of Law that the Board likely does not have authority to allow new entrants to limited entry herring pound fisheries without approval by the Commercial Fisheries Entry Commission (CFEC).

* * *

> A majority of the Board voted to again consider Proposal 126 next year if CFEC were to re-define the current administrative area for the [Northern] Southeast herring pound limited entry fishery to exclude Sitka Sound, where it appears no herring pound operations are currently authorized or have occurred there. The Board could then consider authorization of open gear as an alternative for sac roe seine permit holders. The CFEC could then ratify that alternative gear of seine permits.

I dithered over this a little bit, because I am accustomed to the Board first making a methods and means decision conditioned on subsequent independent regulatory action by the commission. However, there is at least a *prima facie* case for CFEC making a regulatory proposal that would modify its current definition of the administrative area for the Northern Southeast herring spawn-on-kelp pound fishery to exclude the area within Board's definition of the Sitka Sound roe herring purse seine fishery. Because our administrative area definition includes another limited fishery subject to Board regulation, there is an argument that we have not fully met our statutory duties under the Limited Entry Act AS 16.43.200, which reads in relevant parts as follow:

> The commission shall establish administrative areas suitable for regulating and controlling entry into the commercial fisheries. The commission shall make the administrative area reasonably compatible with the geographic areas for which specific commercial fishing regulations are adopted by the Board of Fisheries.
>
> * * *
>
> The commission may modify or change the boundaries of administrative areas when necessary and consistent with the purposes of [the Limited Entry Act].

We will develop and publish a regulatory proposal for public comment. Of course, we will have to reserve judgment, until we have heard all the public testimony, as to whether the proposal is or is not consistent with the purposes of the Limited Entry Act. I can think of

competing analyses, and I am not sure about where this proposal will end up. But we can ensure that all sides are heard and fairly considered.

By Direction of the
COMMERCIAL FISHERIES ENTRY COMMISSION

Benjamin Brown, Commissioner
Bruce Twomley, Chairman

cc: The Honorable Sam Cotten
Commissioner, ADF&G

This is a public hearing on CFEC's regulatory proposal to modify CFEC's administrative area definition for the Northern Southeast herring spawn-on-kelp pound fishery.

Now I'd like to introduce fellow staff members sitting here with me. I have my Co-Commissioner (Benjamin Brown). We have our Law Specialist (Doug Rickey) and we have Head of our Research (Craig Farrington). And we are the folks in response to your testimony who are likely to be asking you questions. And so as we go forward if someone has a question if you'd just get my attention I'll acknowledge you for the record and so they know who's speaking.

Also before we begin I really want to extend a thank you to (Randy Lippert), (David Pierce), and (Ty McMichael) for helping make this work. You guys have done a splendid job. And we are also grateful to GCI and particularly (Julie Pierce) who has helped us through this process.

Now before we begin taking testimony I wanted to say just a few words about the procedure and our regulatory proposal to remove Sitka Sound from our administrative area of definition for the Northern Southeast herring spawn-on-kelp pound fishery. I mean, as you know, earlier board proposal 126 asked the Board of Fisheries to authorize open pounding as an alternative means for the Sitka Sound roe herring fishery.

Now proposal 126 is not at issue in this proceeding but it certainly was the catalyst for this proceeding and our proposal - the trigger that led to this hearing. And you'll notice that CFEC's proposal in front of you says nothing about proposal 126. Our proposal addresses only our area definition. And I wanted to tell you that we made this proposal for two reasons. And the first is that we were asked to do so by the Board of Fish and by the Department of

Law. And that's unusual but that request had a certain amount of force. We like to be good colleagues and cooperate where we can. But there's a second reason and that's actually what prepared us forward to make this proposal.

We took a look at our statutory authorization to define administrative areas at our statute with is AS 16 - Alaska Statute 16.43.200 says that the Commission shall make the administrative area reasonably compatible with the geographic areas for which specific commercial fishing regulations are adopted by the Board of Fisheries. And it further says that the Commission may modify or change the boundaries of administrative areas when necessary and consistent with the purposes of the Limited Entry Act.

So, I mean, for us the question that was raised was why did we define the area for Northern (rolunt) kelp to include Siska Sound in the first place. And we went back to our records, asked our staff to search through what we had, and we could not find a stated reason for doing that. And of course the managers of Sitka Sound have never told us that they wanted to invite more participants in that fishery. It seems that there are plenty of demands there now.

And so we had to acknowledge that our current definition of Northern spawn-on-kelp may not have fully complied with our statute. We just didn't have a stated reason for having included Sitka Sound in that definition. And so we made this proposal and maybe you folks through your testimony can provide us with a sound reason for maintaining the definition or maybe not. It will - much of that will turn on your testimony.

But the thing that I would like all of you to note is that our proposal does not address the merits of proposal 126. And please note that however - whichever way CFEC decides on our proposal the Board of Fisheries could still take up proposal 126. And if the Board were to act favorably on proposal 126 then

CFEC would have to review the Board's action for consideration of whether the Board's action was consistent with the purposes of the Limited Entry Act under Alaska Statute 16.43.4112. And the basic purposes for a Limited Entry that we'd have to have in mind are that Limited Entry is intended to serve conservation and prevent economic distress among fishermen and those depended upon them for a livelihood. That's the most basic standard we work with.

And another thing to keep in mind is that the Board has means and methods authority under Alaska Statute 16.05.251. In turn, the Limited Entry Act governing us Alaska Statute 16.43.950 declares -- and I'm paraphrasing -- nothing in the Limited Entry Act limits the powers of the Board of Fisheries including the power to determine the legal types of gear.

So the short of this proceeding is if the Board in the future acts favorably on Proposal 126 the Board's action will need to come back to CFEC and CFEC will have to determine whether the Board's action is consistent with the purposes of the Limited Entry Act to give it effect.

And so that's when CFEC will be called upon to address the merits. If this does come back to us of course you will all get notice -- anyone interested will get notice -- and have an opportunity to address the merits as well.

So I think we're ready to move forward with your testimony. And if you have questions I'd like you to raise the questions while you are testifying. And we're going to start first with a testimony of people who have traveled here and who are here in this room to testify to us. When we get through your testimony then we'll turn to the people who are lined up on the phone to give their testimony.

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THE STATE of ALASKA
GOVERNOR BILL WALKER

Commercial Fisheries Entry Commission

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Juneau, Alaska 99811-0302
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Licensing: 907.789.6150
Fax: 907.789.6170

January 8, 2016

Tom Kluberton, Chair
Alaska Board of Fisheries
P.O. Box 115526
Juneau, AK 99811-5526

Re: Board of Fisheries Action on Southeast and Yakutat Finfish Meeting Proposal 126

Dear Chairman Kluberton:

As I indicated we would in my letter to you of May 13, 2015, the Entry Commission developed and gave public notice of a regulatory proposal to exclude Sitka Sound from the administrative area for the Northern Southeast herring spawn-on-kelp pound fishery [20 AAC 05.230(a)(9)].

In addition to the usual public notice, CFEC sent an individual notice to all permit holders in that fishery, the Southern Southeast herring spawn-on-kelp pound fishery, and the Southeast roe herring seine fishery, inviting them to send written comments or appear at a public hearing on the proposal that was held at the Entry Commission offices in Juneau on November 6, 2015. The public comment period closed on November 13, 2015.

After due consideration, the Commission has decided to take no further action on the proposal, as we believe the record at this point does not support a change in the boundaries of the administrative area for the pound fishery.

When the Entry Commission considered a petition to limit the pound fisheries in Southeast Alaska in 1994, ADF&G Commissioner Carl Rosier sent us a memorandum regarding the Department's management and conservation concerns with the fisheries in the Hoonah Sound and Craig/Klawock areas. The Commissioner made clear the department's preference for either two large administrative areas (Northern and Southern) covering all of Southeast Alaska, or two

smaller administrative areas that would encompass Hoonah Sound and Craig/Klawock. The Entry Commission ultimately chose the first alternative and defined the Northern and Southern administrative areas as suggested in Commissioner Rosier's memorandum.

Nothing in our research or the public comment we received on this latest proposal convinces us that a change is needed at this time in the administrative area definition for the fishery that has been in place since 1995. If, however, the Board of Fisheries decides to go forward with Proposal 126 or something like it, we would reconsider the matter and examine whether allowing the Southeast roe herring seine permit holders to participate as pound fisherman would be consistent with the Limited Entry Act. Without prejudging the issue, I must tell you that, based on the overwhelmingly negative public comment we received, proponents of such a change will have a significant burden of persuasion.

I have copied this letter by email to Glenn Haight and attached copies of all public comment we received (letters and emails), as well as an unofficial transcript of the public hearing we held in Juneau on November 6, 2015. Virtually all of the public comment and testimony concerns Proposal 126 and, with the exception of those of its proponent Mr. Kapp, all comments were in opposition to the adoption of Proposal 126, mostly because of the potential negative economic effects on the existing pound fishery and its permit holders. It is also worth noting that not a single Southeast roe herring purse seine permit holder offered comment or testimony in favor of the proposal.

Please don't hesitate to contact me if you and have any questions regarding this matter.

Yours Truly,
Commercial Fisheries Entry Commission

Bruce Twomley, Chairman
Benjamin Brown, Commissioner

CC: Permit Holders (G01A, L21A, & L21C)
Sitka Tribe of Alaska
Southeast Alaska Seiners Association

MEMORANDUM

State of Alaska

Department of Law

TO: Glenn Haight
Executive Director
Alaska Board of Fisheries

DATE: March 4, 2016

FILE NO.: JU2015200517

FROM: Seth M. Beausang
Assistant Attorney General

TEL. NO.: 269-5289

SUBJECT: Department of Law comments on proposals for the March 8-11, 2016 Statewide Finfish and Supplemental Issues meeting

The Department of Law has the following comments on the proposals to be considered by the Board of Fisheries at its March 8-11, 2016 Statewide Finfish and Supplemental Issues meeting:

Proposal 126: As we explained to the board last cycle, this proposal would allow Southeastern Alaska herring purse seine permit holders in Sitka to use open herring pounds in Sitka Sound in lieu of their seine gear. The Northern Southeast herring pound fishery is a limited entry fishery and includes Sitka Sound within the limited entry administrative area. In Southeastern Alaska, a "herring pound" can include an "open pound," which is defined in 5 AAC 27.130(e)(2). The board does not have authority to allow new entrants into the Northern Southeast herring pound limited entry fishery by allowing non-permit holders to use open pounds in the fishery. We understand from PC 16 that CFEC considered changing the administrative area of this limited entry fishery, in order to allow the board to act on this proposal, but that CFEC ultimately declined to change the administrative area. The board does not have the authority to adopt this proposal.

Proposal 194: Based on the statements in the proposal about the alleged impacts of trawl fishing on subsistence uses in this area, the board is encouraged to consider

		FISH AND GAME	SUPPORT	GENERAL COMMENT	OPPOSITION
126-2014-2015	Establish a commercial open pound herring spawn on kelp fishery in Sitka Sound. (*Tabled at 2015 Southeast Finfish meeting for consideration at this meeting.*)	N	• Edna Bay AC 25 • Alan Otness PC 5 • William R. Menish PC 9 • Ryan Kapp PC 14 • Gary Suydam PC 22 • Joe Lindholm PC 28 • Darrell Kapp PC 42 • Steve Feenstra PC 45 • Terry Kilbreath PC 49	• CFEC PC 16	• Sitka AC 17 • Wrangell AC 20 • Sitka Tribe of Alaska PC 2 • Clyde Curry PC 17/18 • Clyde Curry PC 18 • Don Johnson PC 19 • Joel Randrup PC 29 • Larry Demmert PC 30 • Southeast Alaska Fishermen Aliance PC 44 • United Southeast Alaska Gillnetters PC 52
Identification of Gear (2 proposals) *(This set of proposals was also heard at the Bristol Bay Finfish meeting where public testimony was taken.)*					
27	Require that a CFEC permit holder's name displayed on a set gillnet site marking sign complies with the same character size marking requirements for permit numbers.	N	• Cooper Landing AC 11		• Central Peninsula AC 6
28	Change the character size requirements for set gillnet marking signs.	N			• Central Peninsula AC 6
Salmon (1 proposal)					

September 15, 2017

Chairman John Jensen, Alaska Board of Fisheries
Board Support, P.O. Box 115526
Juneau, AK, 99811-5526
Emailed via pdf attachment to dfg.bof.comments@alaska.gov

Re: Requesting the Board of Fisheries Reject Agenda Change Request 12

Dear Chairman Jensen,

The City of Sand Point urges the Alaska Board of Fisheries to reject ACR 12 at your October 17-19, 2017 Work Session. This ACR does not meet Board criteria found in 5 AAC 39.999, for approving an agenda change Request.

Last year at the February 2016 Board meeting, the Board encouraged salmon fishery stakeholder groups from the South Alaska Peninsula area and Chignik area to find a compromise solution that would restrict commercial fishing in the Dolgoi Island Area to allow additional sockeye salmon to potentially travel to Chignik, while still allowing harvest opportunity for South Alaska Peninsula fishermen. The new regulations were in place for the 2016 & 2017 salmon seasons.

ACR 12 proposes to radically change the mutually agreed upon Dolgoi Island Area regulations. ACR 12 is predominately allocative and therefore should not be approved at this time. We believe this ACR does not meet the Board's criteria for accepting an ACR:

- There is no fishery conservation concern. This new regulation established only last year is working as intended. Dolgoi fishing is restricted and Chignik escapement goals have been met.
- There is no error in the regulation – the Board was diligent in promulgating the compromise proposal into regulations, and the Department has been careful to enact the rules as written.
- There were no unforeseen effects on the salmon fisheries from this regulation. Both the 2016 & 2017 salmon seasons were unique and surprising, but not as a result of these regulations.

There are plenty of problems with this ACR, however we would prefer to debate the merits of the proposal during the next meeting cycle, when it would regularly come up. At the February 2019

Alaska Peninsula/Chignik Finfish meeting, the Board will have three years of data under regulations to better inform the next decision on this issue.

The City of Sand Point aligns with the Aleutians East Borough, the City of King Cove, and other regional communities on this issue. We respectfully request the Alaska Board of Fisheries reject ACR 12 at the 2017 Work Session. Thank you for the opportunity to provide written comment.

Sincerely,

Glen Gardner Jr.

Glen Gardner, Jr

Mayor

City Office • P.O. Box 249 • Sand Point, Alaska 99661 • 907.383.2696 • 907.383.2698 FAX
Administrator • 3380 C Street, Suite 205 • Anchorage, Alaska 99503 • 907.274.7561 • 907.274.3540 FAX

PC111
1 of 3

Sandra M. Katelnikoff-Lester
3350 Eider
Kodiak, Alaska 99615

mish_maru@yahoo.com 907-486-2246

September 22, 2017

Chairman John Jensen & All Board Members
Alaska Board of Fisheries
Boards Support Section
P.O. Box 115526 Faxed to: 904-465-6094 because this↓ email address does not work
Juneau, Alaska 99811-5526 Submitted electronically to: dfg.bofcomments@alaska.gov

Re: Comments regarding Agenda Change Request #11

Dear Chairman Jensen and Members of the Board of Fisheries,

I would like to speak to you all from a different perspective than others when I talk about DNA testing. I relate to using this type of testing to figure out regulations on who gets to catch fish the same way I relate to the idea that there is such a thing as "invasive species". It is all very subjective and there is no right answer.

Allow me to explain; DNA testing is great to know where you come from as a person. It helps people identify their history, which people they come from and what their main culture is. That is all good and well for people. To me the issue here is, when you identify people in this way it begs others to ask questions like, why did your ancestors come here. Who were they? When did they arrive? Where are they going? How are they and you affecting my environment in the present? This is where I come from, where I was born and raised. This is where I live. To me I might consider your DNA and say you and your ancestors have been an invasive and disruptive people to my environment. I will use your DNA to prove this. Can you see where this is going? Can you see the road we may all take if you chose to make differences in the fisheries regulations according to results from DNA testing?

The system of fishing is not broken and it is not unfair. The fishing industry is regulated and has been for many, many years. The fish caught in any given area is determined by realities given by Mother Nature and not by humans. In the fishing industry around Kodiak Island the fish are caught some years and some years they are not. Over the years of developing our fishing industry we have created a sustainable fishing commerce. Some years our fishermen catch tons of fish, dependent on Mother Nature's decision for right ocean currents, good fishing weather, wind blowing fish our way, getting enough rain, etc...

You see, we have really no control over the fish. Sometimes our fish might end up elsewhere and we don't cry foul. We just continue to do what we do. Wait for next year and hope for the best because it is our people's island life. Fishing is our culture. Subsistence is what we do to survive and it is all dependent on natural influences which are outside of our control.

DNA proves something. It proves that some fish end up where they are not programed to go in any given year due to circumstances that are out of human control.

There is absolutely no way to change this, but consider what will happen to the Kodiak Island people if you try to make changes to our fishing regulations according to effective science for DNA identification. Do you really all want to be responsible for the probable and foreseeable devastation that will follow? My people of this island will suffer and we will be forced to show the world how your board and its DNA have changed our environment.

In closing, I truly believe you are trying to change rules according to information you have no control over. It would be best for all involved if we all just forget about this DNA testing information when trying to relate it to commercial fishing, or animal harvesting for subsistence or commercial purposes, and let's just continue to allow nature to dictate where and when fish and other animals will be harvested. Let's keep it as is and call it the luck of the draw and in some cases Divine Intervention as created by GOD.

Oh, and to touch upon "Invasive species" let's just say, there is no such thing on earth, unless of course you're a species not of earth.

Best Regards,

Sandra M. Katelnikoff-Lester
Kodiak Island Resident

PC111
3 of 3

Sandra M. Katelnikoff-Lester
3350 Eider
Kodiak, Alaska 99615

mish_maru@yahoo.com 907-486-2246

September 22, 2017

Chairman John Jensen & All Board Members
Alaska Board of Fisheries
Boards Support Section
P.O. Box 115526
Juneau, Alaska 99811-5526

Faxed to: 904-465-6094

Re: Comments regarding Agenda Change Request #11

Dear Chairman Jensen and Members of the Board of Fisheries,

I have a question for the scientists or biologists. I believe it is a rather important question to ask. I want to know if they considered when they wrote to you about Agenda Change Request #11 if they considered the theory that the reason there are DNA identified Cook Inlet fish that show up in the different Kodiak Archipelago areas is because the species of fish is attempting to keep their DNA from mutating.

Everything in life has to mix its DNA with a fresh batch of DNA every so often so that DNA specific mutation does not happen and it keeps the stock viable and healthy. So just maybe the fish are taking care of their DNA by mixing with fish from other areas and not just the Kodiak Island Area.

I totally believe this is a sound theory and it would mean that we are not catching the pass thru fish but rather fish that are attempting to keep the species strong.

If this is the case, we would request you make no changes to our fishing regulations. At least until this theory is disproven by science.

Best Regards,

Sandra M. Katelnikoff-Lester
Kodiak Island Resident

Shirley Monroe

P. O. BOX 1202

Kodiak, Alaska 99615

September 29, 2017

Chairman John Jensen

Alaska Board of Fisheries

Boards Support Section

P.O. Box 115526

Juneau, Alaska 99811-5526

RE: UCIDA AGENDA CHANGE REQUEST AND

GENETIC STOCK COMPOSITION OF SOCKEYE SALMON IN

THE KODIAK MANAGEMENT AREA

As a fisherman and boat owner I oppose the UCIDA agenda change request because it does not meet the Board's agenda change request criteria because the Kodiak Management Area genetic stock composition study does not present any new information that corrects an effect on the fishery that was unforeseen when the regulation or management plan was adopted nor does Cook Inlet sockeye caught in the Kodiak Area create a conservation concern or have conservation purpose or reason. Moreover, there is no error in regulation that needs correcting.

I have been fishing a set net site in Larsen Bay and Uyak Bay since Summer of 1961, family operation. Became a partner in a Kodiak Seine vessel in 1981 as you can see our family depends on the fishing season in Kodiak Area, the time period between June 23 – July 31st would cut into our family income in a big way.

I have a question for the Alaska Board of Fisheries, has anyone ever taken samples of scales to see just how many fish in the Cook Inlet Area belong to the Kodiak Area or some other area? First it was Kodiak taking Chignik and Area M fish now taking Cook Inlet fish when does it stop,? We have no control over what the salmon do and were the salmon go so they are like "common property", until caught.

Kodiak fishery is an historical fishery that has been well managed over the years through the good and bad years, keep up the good work Department of Fish and Game.

As a west side Kodiak Salmon fisherman I feel we need to do more research and do a complete genetic stock composition over a longer period of time before any changes are made. UCIDA agenda change request does not meet the Board of Fisheries Agenda Change Request criteria.

Sincerely yours,

Shirley Monroe

Shirley Monroe

James, Kip, Darlin Monroe

Southeast Alaska Fishermen's

9369 North Douglas Highway

Juneau, AK 99801

Phone: 907-586-6652 Email: seafa@gci.net

Fax: 907-523-1168 Website: http://www.seafa.org

October 3, 2017

Board of Fisheries
John Jensen, Chairman
PO Box 115526
Juneau, AK 99811

RE: Agenda item #13 – 2017/2018 Cycle

Dear Board of Fish Members,

In reviewing the materials for the October work-session we noticed in agenda item #13 the suggestion of possibly shortening the scheduled days for the Southeast meeting. We would respectfully request that if you are shortening the length of the meeting to please take days from the end of the meeting. This request is because the Board of Fish meeting overlaps with the International Pacific Halibut Commission meeting in Portland, Oregon and many of the same representatives that attend the Board of Fish meeting are participants at the IPHC meeting.

We also hope while discussing the length of the meeting – the Board clearly articulates the plan for the Southeast meeting since you combined both finfish and shellfish together. Our association would hope that you plan to split the meeting into two or three segments with public testimony before each segment. Our preference would be to split it into Shellfish 1st, followed by the 2nd segment of salmon and groundfish and a 3rd segment with herring last or divided into shellfish and finfish. It would be the participants responsibility to follow the process and be there in time for whenever public testimony will start. There are too many proposals to be able to speak to them in one public testimony segment. Thank you for your consideration of our request.

Sincerely,

Kathy Hansen
Executive Director

Stephen O'Brien
PO Box 8804
Kodiak, AK 99615

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
PO Box 115526
Juneau, AK 99811-5526

October 2, 2017

Re: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

To Whom It May Concern:

My name is Stephen O'Brien and I oppose the UCIDA agenda change request because it does not meet the Board's agenda change request criteria because the Kodiak Management Area genetic stock composition study does not present any "new information" that "corrects an effect on the fishery that was unforeseen when the regulation (management plan) was adopted" nor does Cook Inlet sockeye caught in Kodiak create a conservation concern or have conservation purpose or reason. Moreover, there is no error in regulation that needs correcting.

In 1977, my parents bought into a set net site in Larsen Bay, Alaska. Larsen Bay, located in Uyak Bay, is on the west side of Kodiak Island and has been my summer home for the last 31 years. Set netting and the Kodiak salmon fishery has always been a part of my life. As a kid, I spent my summers in Larsen Bay while my parents, Jane Petrich and Jim O'Brien, ran their own set net permits. At the age of 14, my parents transferred their permits to my brother David and me, and together we began running a two-permit set net operation. Since then, our set net site has grown into a family business. My wife, brothers David and Erik, sister in law, nieces, and parents are all significantly invested in the Kodiak salmon fishery. We rely heavily on strong salmon runs to provide for our families and crew members, especially during the June 23 to July 31 portion of the Kodiak salmon fishery.

I am deeply opposed to the agenda change request. I believe it to be a terrible model to completely disrupt one area's fishery to slightly advantage another area's harvest. Salmon are considered "common property" and do not "belong to" the management area where they were born. Further, if Kodiak is regulated for the presence of Cook Inlet sockeye, will the board also move to regulate Chignik and Area M for the take of Kodiak sockeye and pinks? Lastly, I do not believe the information gathered from the genetic testing done in a short three-year time period holds enough merit to move forward with changing the management for the pertaining areas permanently.

The Kodiak fishery is a historical fishery that is not fishing in new areas. The Kodiak Management Plan is focused on the availability and harvest of local stocks and does not target Cook Inlet fish. I believe the management plans are working based on the continued success of Kodiak fishermen and the salmon runs seen around the island.

In conclusion, I feel it important to restate that the UCIDA agenda change request does not meet the Board of Fisheries Agenda Change Request criteria. The Kodiak Management Area genetic stock composition study does not present any “new information” that “corrects an effect on the fishery that was unforeseen when the regulation (management plan) was adopted” nor does Cook Inlet sockeye caught in Kodiak create a conservation concern or have conservation purpose or reason. Moreover, there is no error in regulation that needs correcting.

Sincerely,

Stephen O’Brien
Kodiaksob@gmail.com
907-942-4166

Steve and Jenny Roth
F/V Sea Grace
PO Box 3171
Homer, Alaska 99603

September 29, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
P.D. Box 115526
Juneau, AK 99811-5526

Re: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

Chairman Jensen,

My wife and I appreciate the opportunity to comment. We are against ACR-11 because it does not meet the Board's agenda change request criteria. The Kodiak Management Area genetic stock composition study does not present new information correcting an effect on a fishery that was unforeseen when the management plan or regulation was adopted, nor does Cook Inlet sockeye caught in Kodiak present a conservation concern or have conservation purpose or reason. In fact, it could have damaging conservation effects on Kodiak salmon runs.

I have run a family salmon seining operation in Kodiak for the last 27 years. My wife, children, nephews and grandchildren have also participated in the family fishing business both on my boat and as shore support. We employ at least three crew members every year, and do all of our boat work on the Kenai Peninsula using local marine trades and supply stores. We spend an average of $75,000 on boat and gear work alone annually and base our annual financial plan on income provided from our Kodiak fishery. I have fished my entire salmon career mostly on the West Side of Kodiak. Our family's livelihood and that of our crew depend on the availability of West Side fishing grounds as that is where my fishing knowledge and expertise lie and is also where our Processor, Icicle Seafoods, is located.

This agenda change request is not tied to any assessment of the annual percentage of Cook Inlet sockeye incidental catch in any of the management areas targeted. It also does not address biological and environmental variability in either Kodiak or Cook Inlet sockeye runs. Most important, as a West Side Kodiak salmon fisherman, is the drastic impact on fishing of local stocks. Forgoing harvest of local Kodiak run sockeye will cause over-escapement, fleet movement and proposed closures would reallocate catch between seine and gillnet gear-types and local Pink and Dog harvest being limited to inner bays will result in lower quality of catch for Processors and potentially lower salmon prices for Kodiak fishermen which are already often lower than the prices that Cook Inlet fishermen receive. Additionally, many set gillnetters

with fish camps near capes that have been established for generations do not have the flexibility to move to inner bays and it would present an absolutely catastrophic burden on their multi-generational family fishing businesses.

This proposal sets a dangerous precedent, completely disrupting one area's fishery to slightly, if at all, provide gains in another management area. We appreciate the responsible and sustainable management by Alaska Department of Fish and Game biologists in Kodiak that have the sustainable future of salmon stocks in mind. We can empathize with the frustrations of our northern neighbors in Cook Inlet, both commercial and recreational fishermen, who have experienced less successful management of their area. However, as salmon are considered common property and do not belong to the management area where they are born, we do not see placing the burden of resolving Cook Inlet fishery issues on the Kodiak Management Area as the answer to their problem. If Kodiak is regulated for the presence of Cook Inlet sockeye then will the Board of Fish also place regulations on Chignik and Area M for the take of Kodiak Sockeye and Pinks? We do not wish, nor expect, such a burden placed on our neighbors.

This proposal does not take into consideration the economic costs to Kodiak salmon fishing families, Processors, processing workers, or Alaskan coastal communities that benefit from the income of Kodiak salmon fishermen. The proposal does not meet Board of Fish criteria for presenting new information that has unforeseen conservation effects on a fishery would have immense negative economic and conservation impacts. I hope that the Board sees that there is no error in the current regulation that needs correcting.

Thank you for your time and consideration in this matter,

Steve and Jenny Roth Family
F/V Sea Grace

Steven Roth
Jenny A Roth

Steven E. Horn
1210 Mission Road, Kodiak, AK 99615
F/V Gallant Girl
Email: <sehorn52@hotmail.com>; Telephone: 907-539-5211

September 26, 2017

Mr. John Jensen, Chair
Alaska Board of Fisheries
P.O. Box 115526
Juneau, AK 99811-5526

Issues: 1) UCIDA Agenda Change Request #11, 2), Kodiak Area Red Salmon Management & Genetic Stock Structure.

Dear Chairman & Members of the Alaska Board of Fisheries,

I adamantly oppose the UCIDA Agenda Change Request #11.

The Kodiak Area commercial salmon fishery, to the extent that some Cook Inlet sockeye salmon are caught in this fishery, does not create a conservation concern for the Cook Inlet sockeye salmon resource.

ACR #11 would have the result of unjustifiably taking a large piece my livelihood away from me, and from many other Kodiak Area Salmon permit holders, crew members, processing companies and their workers, etc.

Among the significant negative economic impacts that are driven by the implementation of the reasoning and objectives of the proposed ACR #11, or some other action that approximates such objectives, ACR #11 would a) severely restrict and damage the ability of all Kodiak salmon permit holders to target and harvest the Kodiak sockeye and pink salmon stocks that are routinely present in large numbers, and in a wide geographic distribution, during June 23 to July 31 time-frame, b) cause unnecessary confinement and concentrations of seiners in many areas, including areas in which set net fisheries occur, c) create gear conflicts between small seiners, large seiners and set net fishermen, and d) result in the provision of dark and lesser-quality salmon to processors, the marketplace and consumers.

Cook Inlet Salmon are, as are other salmon in Alaska, a common property resource that belong to the citizens of the State of Alaska, and not only to Cook Inlet Area commercial salmon permit holders and other users who are specific to Cook Inlet. I respect and understand that the management of the salmon resource in a specific management Area must first and primarily consider and manage to achieve important objectives of conservation, escapement and other biological goals, and then should appropriately seek to achieve benefits from the provision of these salmon for the commercial, recreational, sport, subsistence, personal use and other user groups.

Why would the Board focus only on Kodiak, and not on other areas in the Gulf of Alaska where the interception of Cook Inlet sockeye salmon occurs? If the Board is going to continue to scrutinize any harvest of Cook Inlet salmon that may occur in Kodiak, the Board should act fairly, equitably and with equal conservation concern by additionally scrutinizing the interception of Cook Inlet salmon that may occur in other areas that lie to the East and West of Cook Inlet. The Board should certainly not fail to consider and address that there is an interception of Cook Inlet-bound sockeye salmon in the outside sections of the Chignik management area. Before the Board proceeds any further, it is imperative, and fair, for the Board to ask ADF&G to design, fund and implement an appropriately designed and comprehensive multi-year study to address the extent of harvest, productivity and other biological concerns associated with the harvest of Cook Inlet-bound sockeye salmon that occurs outside of the Cook Inlet management area, and the harvest of Kodiak bound sockeye and pink salmon that occurs outside of the Kodiak Area.

I have commercially fished salmon in the Kodiak area since I was 8 years old. I have been a Kodiak salmon area permit holder in the Kodiak area since 1973 (44 years), and have engaged in this salmon fishery every year with the exception of 1989 when the fishery was closed because of the Exxon Valdez Oil Spill.

My operation has provided employment for three crewmembers during all of those 44 years.

My father was a commercial salmon fisherman since the late 1940's until the early 1970's, and he fished salmon in Chignik, Cook Inlet and Kodiak.

Fishing is my only income, and the Kodiak salmon fishery that occurs in the Kodiak salmon fishery during the June 23 – July 31st time frame is very important to me, and represents a significantly substantial amount of my entire salmon season. Moreover, this time frame provides a substantial amount of income for the many crewmembers who have worked with me in my salmon fishing endeavors.

Thank you for your consideration of my comments. Please make the effort to be careful and comprehensive with respect to your study and understanding of this multi-dimensional and complex issue.

Sincerely Yours,

Steven E. Horn

Stosh Anderson
Box 310
Kodiak AK 99615
30 September 2017

Alaska Board of Fish

Re: ACR. 11

Dear Mr. Chairman and Board Members,
I am requesting that you deny ACR 11 as it doesn't meet your requirement for an ACR or a Board generated proposal. This is not a new issue and if it needs to be addressed it should be in the normal BOF cycle. Recent genetic information is not designed for or should be use in an allocation process.

Thank You,

Stosh Anderson

It has come to my attention that some one desires to change the ice fishing restriction on the Chatanika river from 3 miles upstream of Goldstream to one mile. I consider this proposal to be ill advised and illogical since the object of this restriction has been to rebuild the seriously depleted Pike stocks in Minto Flats and the Chatanika drainage. I propose, instead, that all ice fishing on the Chatanika and Tolovana Rivers be eliminated until the fishery recovers. My 35 years of, “catch and release", fishing experience in this area, convinces me that the Pike stocks are significantly lower than I experienced in the 80’s. If it is politically impossible to defend the overwintering areas I suggest the bag and possession limits for Pike be extended to the subsistence fishery. Pike recruitment and growth rates do not support an unrestricted harvest of the sort I have observed at the mouth of Goldstream.

Stuart Varner

Submitted By
SUE JEFFREY
Submitted On
10/3/2017 10:44:24 AM
Affiliation

Sue Jeffrey

P.O. Box 3363

Kodiak, AK 99615

October 3, 2017

Chairman John JensenAlaska Board of Fisheries

P.O. Box 115526

Juneau, AK 99811-5526

RE: UCIDA Agenda Change Request (ACR#11) and Genetic Stock Composition of Sockeye to the Kodiak Management Area

Dear Chair Jensen and Board of Fish members,

My husband, Dan, and I have been fishing our setnet site on the west side of Kodiak Island since 1987.

One of my major concerns is that ACR #11 is primarily allocative. It not only allocates between regions, but also proposes a major restructuring of Kodiak's longstanding Kodiak Management Plan that would create a significant reallocation of Kodiak's salmon fisheries between Kodiak's two major salmon gear groups and trigger a significant and widespread economic loss in Kodiak.

The following bullets are offered to briefly shed light on the history and components of the Kodiak Management Area (KMA):

* Nonlocal salmon mix with Kodiak bound salmon as they migrate throughout the Kodiak Archipelago. This is a region of largely undeveloped, pristine salmon habitat and nutrient rich waters that sustain Alaska's wealth of marine resources and its residents who depend on them today as they have for the past 10,000 years.

* Kodiak fishermen and processors have been harvesting salmon commercially since the 1880s in the Kodiak region.

* The majority of the KMA has been managed the same way since well before statehood, targeting local runs while realizing that nonlocal sockeye migrate through the KMA.

* After limited entry resulted in harvest reallocations, Kodiak's area-wide pink salmon harvest strategy was developed in the 1970s and 1980s to minimize targeting of nonlocal salmon by focusing fishing on abundance of local salmon.

* All sections and districts of the KMA are managed on local pink and sockeye salmon runs. If there are no local stocks to harvest … if escapement numbers on our Kodiak systems are weak … the section or district is closed. Period.

* The Kodiak salmon fleet targets local runs with gear designed to catch Kodiak's abundant pink and sockeye runs.

* In July of 1988, the timing of unusually good weather on the Shelikof Strait allowed the Kodiak salmon fleet to see and target large schools of sockeye jumping far offshore, presumably headed for Cook Inlet.

* As a result, the North Shelikof Strait Management Plan was created in 1990 with "triggers" that establish harvest caps for *all* sockeye in the North Shelikof – local and nonlocal – for three weeks in July.

* Although the burden of conservation falls squarely on the Kodiak salmon fleet, salmon managers cannot quantify the effects of restricting Kodiak sockeye salmon harvests in North Shelikof Strait on the sockeye harvests or escapements in Cook Inlet.

ACR #11 states that it is only now, as a result of the genetic study, that the magnitude of the harvest of nonlocal stocks in the KMA is known. However, for my family and those of us who have been salmon fishing in Kodiak for more than 30 years, THIS IS NOT NEW NEWS. We already have sliced and diced the mixed stock component of Kodiak's salmon fisheries. The BOF already places a heavy burden of conservation on the Kodiak fleet.

In its wisdom, the BOF adopted the ACR criteria clearly to ensure orderly, dependable fisheries for the benefit of the people of the State of Alaska. It is a grave matter to deviate from the BOF cycle. Doing so is disruptive to everyone involved: harvesters, processors, support industries and entire communities who depend the fisheries.

BOF “Policy for Changing Board of Fisheries Agenda” (5AAC 39.999) (2) states “… the board will not accept an a
that is predominantly allocative in nature in the absence of new information found by the board to be compelling;”

It is wise public policy for the BOF to deviate only very rarely from its long-established board cycle. ACR #11 is not compelling. There is no error in regulation to correct, nothing was unforeseen when the regulation was adopted, and there is no conservation threat or new information to warrant an aberration from the BOF cycle. Moreover, ACR #11 is highly allocative. I urge you to vote this down.

Sincerely,

Sue Jeffrey

Submitted By
Susan Payne
Submitted On
10/3/2017 8:40:43 AM
Affiliation

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Chairman John Jensen

Alaska Board of Fisheries

Boards Support Section

P.O. Box 115526

Juneau, AK 99811-5526

October 2, 2017

RE: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in

the Kodiak Management Area.

I am disappointed that the Board of Fish approved the Agenda Change Request to allow consideration of UCIDA's proposal to drastically change the Kodiak Management Plan to limit Kodiak's ability to participate in the traditional mixed-stock fishery that it has always been. In my letter to you in February, I presented reasons why the sampling methodology and scope of the genetic study was flawed and incomplete: gear type contribution unclear, area limited, and length of study too short to represent typical ocean conditions. Now we have UCIDA's proposal to consider and we can get down to business.

We currently are set gillnet fishermen on the Kodiak Westside where we have been since 2002, fishing two permits. Prior to this fishery, we both were beach seiners (since 1983 and 1994) and still own the permits. The last few years, our two children have grown up to the point that we count on them as full crew. Sometimes,depending on the forecast, we hire one other crew person often from Kodiak. We fish from June 1 until school starts in Kodiak, mid-August. Salmon fishing contributes significantly to our income.

Cook Inlet's proposal would be a reallocation of a traditional resource from the Kodiak salmon gear types, potentially impacting in lost fishing time and revenue not only the 188 set gillnetters, but also the 375 seiners and the possible 31 beach seiners, the crew, processors, cannery workers, and local businesses. If you decide to adopt the UCIDA plan, the Kodiak set gillnet fishery will be put out of business. Set gillnet fishermen cannot chase the fish to the stream terminus thus it also would reallocate salmon away from our fishery to the Kodiak seiner. Would you fix this situation by letting the set gillnet fleet fish continuously from June 1-October 15? Sounds good to me as a continuous fishery would be a great platform for salmon research.

The proposed in-season closures could be a significant amount of time out of our season having us sit on the beach up to 6 weeks out of the summer. To make a season, we need fishing time on all the local stocks, for the entire time period. Many years, we make our season in the time period in question: June 23 thru July 31. Our camps require significant work to open and close and require a presence to guard equipment from weather. We already operate under a Harvest Strategy during that time period and are limited in fishing time during years of poor pink forecast. How would the two limitations interact and affect us? The proposal is untenable and would bring economic disaster to everyone.

Conservation of Cook Inlet bound fish will not necessarily improve as the returning fish will be caught by the Cook Inlet commercial fleet, a growing subsistence fishery, and sport fishermen in Cook Inlet. To address conservation, Cook Inlet resource users need to support habitat protections to identify and protect salmon spawning habitat and address development and use along streams, kill the Susitna Dam project once and for all, and reduce and control the subsistence harvest (freezers are full of wasted fish each year). Ironically, the 2017 Cook Inlet season was relatively good as I would hope was escapement. The Burden of Conservation for Cook Inlet bound fish shifts to our gear type especially and appears to further impact gill net sites located on headlands.

Unless, you can prove that Kodiak is targeting Cook Inlet salmon, current management is no different than in 1988 when this issue was last addressed by the BOF. Cook Inlet bound fish contribute some to the entire Kodiak harvest then as now, some more years than others**.** It is unclear to me how the managers will determine the number of Cook Inlet bound fish and how this will be implemented and funded. It is clear that UCIDA's proposal will impact us with reallocation, disruption, and lost revenue, but provide little conservation gain.

Sincerely,

Susan Payne

Horseshoe Bay

PO Box 1903

Kodiak, AK 99615

Chair John Jensen

AK Board of Fish

Boards Support

PO Box 115526

Juneau, Ak 99811-5526

Sept 29,2017

My name is Sylvia Kavanaugh and I am against ACR #11. I am a lifelong Kodiak resident, born and raised on Kodiak island. I grew up fishing on our family seiner spending summers working as a crewmember during Salmon. My first job consisted of pushing salmon into the fish hold and taking wheel watches from my Dad's lap at the age of 4. I own a S01K salmon seine permit. My fiancé, 19-month-old daughter, and I are 100% dependent on fishing income.

The Alaska Board of Fish and Game took steps to improve their proposal cycle and the frequency that those issues would be taken up. I would like to highlight that this ACR has no new information that meets the provisions required to take up a proposal outside of cycle. ACR 11 lacks a depth of data necessary to make factual conclusions and creates a climate for hysteria and misinformation. It seeks to reallocate a utilized resource- The proposer even states that the proposal is allocative. While the proposer seeks to dismiss the allocative nature of ACR 11, there is no less negative economic aspects of reallocation whether it is regional or gear type. Although, in this circumstance the allocative measures have a much farther-reaching influence. It crosses over to biological and management concerns.

This ACR disregards the mixed stocks Kodiak has in the Shelikof. It creates management problems such as gear conflicts, overcrowding, over escapement, and unpredictability of openings/closures.

I believe this could lead to a devaluation of my S01K permit which is already the lowest in the State. I believe that it could cost my fiancé and I our jobs, as lost fishing time and opportunity take their toll on boat ownership & earnings. I believe canneries would necessarily hire less workers and offer less hours to their employees. I believe that streams and salmon habitat could be harmed because of forgone harvests.

I believe that this ACR overreaches and has the potential to do more harm than good.

Sylvia Kavanaugh

719 Cottonwood Circle

Kodiak Alaska 99615

(907)942-7481

Terri Springer
PO Box 1790
Kodiak, AK 99615

September 25, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
PO Box 115526
Juneau, AK 99811-5526

RE: UCIDA Agenda Change Request and
Genetic Stock Composition of Sockeye Salmon in
the Kodiak Management Area

I adamantly oppose the UCIDA agenda change request because it does NOT meet the Boards agenda change request criteria for the following reasons:

1. The KMA genetic stock composition study does not present any “new information” that corrects an effect on the fishery that was unforeseen when the management plan was adopted.
2. Cook Inlet sockeye caught in Kodiak does NOT create a conservation concern or have any conservation purpose or reason.
3. Therefor there is NO error in regulation that needs correcting.

I have been actively involved in commercial set net fishing on the Westside for 30 years. This has been our families main source of income. During the time frame of June 23-July 31 an overall average of 65-69% of our total income is caught during this time. Loss of fishing time would be devastating to our family! Not only personally, but our community would be facing a catastrophic economic disaster. From processors, to processing workers and all kodiak businesses would be severely negatively impacted by this proposal.

This Agenda Change Request does not make any sense for several reasons but one of my biggest concerns is that it does NOT consider the drastic fishing impacts it would have on the local fishing stocks. The absolute devastation of our local runs from over escapement is a forgone conclusion. The quality of the fish will plummet as the fleet is forced to move into the inner bays to harvest.

This is a terrible precedent to set. Salmon are considered “common property” and do not “belong to” the management area where they were born. By disrupting one area’s fishery to slightly advantage another areas harvest will have statewide repercussions as other areas will jump on the “THEY’RE MINE” bandwagon.

Kodiak fisheries is a historical fishery. We are not fishing in any new areas. The same species come and go year after year. Many years ago our seasons fluctuated quite a bit more than they do now. I believe this is due to our Kodiak Management Area management plans affectively focusing on our local streams.

The UCIDA agenda change request does NOT meet the Board of Fisheries Agenda Change Request criteria. The Kodiak Management Area genetic stock composition study does NOT present any “new information” that “corrects and effect on the fishery that was unforeseen when the regulation management plan was adopted” nor does Cook Inlet sockeye caught in the Kodiak area create a conservation concern or have conservation purpose or reason. Moreover, there is no error in regulation that needs correcting.

Sincerely yours,

Terri Springer

Submitted By
Theresa Peterson
Submitted On
10/2/2017 9:07:32 PM
Affiliation

Boards Support Section

P.O. Box 115526

Juneau, AK. 99811-5526

RE: ICIDA Agenda Change Request

Dear Chairman Jenson and Members of the Board of Fish,

As an Alaska with great respect for the policy making process for fisheries in Alaska, I oppose the UCIDA agenda change request as I believe it both undermines and violates the integrity of the established process. The request does not meet the agenda change criteria as an error in regulations, nor do Cook Inlet sockeye caught in the Kodiak area create a conservation concern. In addition, the genetic study composition does not provide adequate information to justify an ACR as it does not contain new information that was unforeseen when the Kodiak Management Plan was adopted. Any discussions to change the Kodiak Management Plan should take place during the normal board cycle, the cycle when the public may plan for and participate in the decision making process which impacts the fisheries they are engaged in.

Our family has been involved in the Kodiak Salmon fishery since the 1970's and in 1987 we purchased our first seine vessel. We further invested in the Kodiak fishery by upgrading our vessel in 1991 and purchasing a setnet site in Alitak Bay in 2004. We live in Kodiak year round and derive most of our income from commercial fishing. Our three children participate in the salmon fishery as well. Like many in Kodiak, the salmon fishery is a significant part of our fishing portfolio and without it we would not be able to maintain our vessel, reside in Kodiak and prosecute other fisheries. The island can be a challenging place to live; expensive, isolated and subject to harsh weather. Access to the fisheries is the key to our survivability in this remote environment and any changes to Kodiaks Management Plan should be discussed in the normal board cycle with adherence to all Board of Fish regulations.

The ACR submitted by UCIDA does not take into account the natural variability, both large and small, of either Cook Inlet run or the Karluk run. The proposed caps during a 5-week period do not consider run strength in either management area and contradict the mixed stock policy of the Board of Fish. Guidance for this action can be found in the "Alaska Board of Fish Findings for Policy on Mixed Stocks Salmon Fisheries" from 1993.

The UCIDA ACR does not consider the drastic fishing impacts on the fishing of local Kodiak stocks. The foregone harvest of local sockeye will cause over-escapement and poor quality as catches would be moved to inner bays. There is no consideration of the impacts of this action and no assessment on the economic costs to Kodiak salmon fishermen, processors, processor workers, Kodiak businesses and the Kodiak community.

We have the opportunity to review the Kodiak Management Plan during its' scheduled cycle in 2020. This is the process we support and believe is the most responsible to address concerns regarding management plans. ACR's are a terrible way to manage and set a bad precedence throughout the State. This is Alaska – we expect a policy process which is predictable and serves to engage the stakeholders. Please maintain the high standards of State management and deny the ACR from UCIDA by following the criteria set by the Board of Fish.

Thank you,

Theresa Peterson and Family

Submitted By
Thomas Wischer
Submitted On
10/2/2017 11:42:34 AM
Affiliation

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PO Box 202
Kodiak, Alaska 99615

Dear Board Members,

My name is Thom Wischer. I am a Kodiak set net permit holder. I have fished the same net locations for the past 41 seasons. I would urge you to put the science and the politics on the shelf for a moment and look at the Cook Inlet ACR only with common sense.

Kodiak is an island in the North Pacific. Fish swim in our waters bound for many streams, not all of them on Kodiak Island. This has been a well-known fact since before there was a commercial fishery. Kodiak has always been a mixed stock fishery. The cited “genetic study” did not tell us anything we didn’t already know. I fish in Kupreanof Strait. There are no spawning streams in the strait, so all of the fish that I catch are bound for someplace else. If a fisherman cannot catch any of the fish swimming past his net for fear that a few are not “local fish,” then why fish at all? Kodiak is primarily an intercept fishery. It has never been managed as a terminus fishery, and attempting to do so would be a disaster for all species of salmon that sustain this community.

There are many variables when specific returns decline and those affected will always want to place blame somewhere. The resource belongs to all Alaskans. Because you fish in a specific region or location, those fish are not “your fish.” It has not ever been demonstrated that the incidental catch by Kodiak fishermen of “non-local” fish is the cause or even a contributing factor in the diminishing returns for Cook Inlet or anywhere else fish swimming in our waters might be headed.

It is a very slippery slope if the Board of Fish allows one region to dictate the management of another region. I employ you to reject the ACR submitted by UCIDA.

Tim Gossett

P.O. Box 1277

Kodiak,AK 99615

October 1, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
P.O. Box 115526
Juneau,AK. 99811-5526

RE: UCIDA Agenda Change Request and Genetic Stock Composition in the Kodiak Management Area

Dear Board of Fish members:

My name is Tim Gossett. I have fished commercially in Kodiak since 1978 and have been running my own seine boat for over 30 years. My income is derived solely from commercial fishing. I am opposed to the UCIDA change request and restricting KMA fisheries with the
hope to positively influence the harvest in UCI.

I am concerned about the consequences and trickle down affect of again changing the Kodiak Management Area plan. I am certain that if passed the ACR would have a crippling affect not just on the Kodiak fishermen but on the island as a whole, the town and its people.

Kodiak has a long history of commercially caught salmon dating as far back as 1882. Review of historical records indicates Kodiak has harvested Cook Inlet sockeye at low levels for well over a century now. The complex inter connected nature of Kodiak's management plan
has nurtured the recovery of local stocks, helped create a high quality product and maintained flexibility for the fleet to maximize production
…none of which has negatively impacted Cook Inlet sockeye returns to a significant degree.

Many questions abound. How many Kodiak processors would remain committed to buying our fish knowing that they could lose a major
portion of the season? What about our local pink and chum systems and the very real possibility that they would be over escaped? If the thrust of the proposal is to keep us from fishing outside waters and force everyone into the bay, what happens to the sockeye, pink, chum
and coho from our more prolific LOCAL systems that empty DIRECTLY into Shelikof Strait? (i.e. Karluk / Ayakulik) Do we over escape them, too ?
Could set netters survive when forced to compete with seine boats inside the bay? Would product quality suffer when seiners were forced
into the inner bays ?(and bright fish turn dark) Why should the burden of conservation of relatively healthy Cook Inlet salmon stocks be prioritized
above that of KMA local stocks ?

We have been down this road before. Really, nothing has changed. We only have more data that tells us what we already knew.The recent
genetic MSA report is a new way to get the same information we had in 1988 (and beyond)….it is long on data and short on analysis.

The adoption of this change would be precedent setting. Kodiak could now make a strong case that Area M is harvesting pink and chum salmon bound for its waters. Other areas throughout the state could follow suit. In 1993 the Board of Fisheries addressed the policy for mixed stock salmon fisheries when it said, “most mixed stock fisheries are long standing and have been scrutinized many times by past Boards. Consequently, existing regulatory management plans are understood to incorporate conservation burden and allocation.” They followed up by stating " the policy should not be a tool to be used for allocating outside of the Board’s allocation criteria”.

UCIDA’s change request does not meet the ACR criteria as ;

1) There is not a conservation issue. Escapement goals are met. In my opinion, we have actually helped Cook Inlet each year from July 6th - 25th when we adhere to the rules set forth in the North Shelikof Management Plan first implemented in 1990. This takes away access to our own LOCAL stocks and prevents us from fishing in approximately 324 square miles and 108 nautical miles of coastline in the Kodiak Management Area.

2) There is not an error in regulation. Kodiak is a mixed stock fishery. All of the studies in the past have shown comparative type numbers
of Cook Inlet fish during the same brief period of time. The Board of Fish was aware of this. It is a given. Nature has allocated non local salmon to Kodiak salmon fisheries.

3) There has not been an effect on the fishery that was unforeseen. We have not affected (or endangered) Cook Inlet stock or harvests in a negative way. Our mixed stock fishery has a long history and the presence of Cook Inlet fish has not been “unforeseen”.

Our community has worked hard in the past on this issue as it has been re addressed over and over. Thank you for your time and service.

Sincerely,

Tim Gossett

.

Submitted By
Timothy Murphy
Submitted On
10/1/2017 9:49:24 PM
Affiliation
Chignik Fisherman

To the Chairman and members of the Alaska Board of Fisheries;

I am writing to you to offer my support for ACR 12, in regards to addressing the intercept of non local stocks in the Dolgoi Island area of the South Alaska Peninsula Management Area.

The proposal passed at the previous South Alaska Peninsula Board Meeting in 2016 had the intent of helping non local sockeye stocks pass thru this interception zone in the hopes they may make it into the Chignik Management Area.

The proposal intended to close the Dolgoi Island section when a cap limit of 191,000 sockeye harvest was achieved. The Dolgoi Island section was not closed until a harvest in the area of 277,000 sockeye was achieved. Ive heard someone did the math and this overharvest wouldve equated to approximately 4000 sockeye per boat average in the CMA fleet.

Chignik is a sockeye fishery, and a small piece of the whole State salmon pie, regulations on either side of the CMA have gone for a long time with no regard and to the detriment of the fishery in Chignik. The Chignik salmon fishery needs more resource to be able to make it through intercept areas. Compare overall salmon harvests between the neighboring areas, or just compare the amount of sockeye harvested between the areas and you can see who is starving for resource, losing out on harvest opportunity thanks to the interception of non local stocks that we know about thanks to the WASSIP study.

A sockeye harvest in the area of 850,000 was the reality in the CMA in 2017, the CMA could be a strong economic region able to stand on its own if the resource bound for there was able to make it through intercept areas.

Timothy Murphy

Chignik Fisherman

Submitted By
Tollef Monson
Submitted On
10/3/2017 8:48:07 AM
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Tollef Monson

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October 3, 2017

Chairman John Jensen

Alaska Board of Fisheries

Boards Support Section

P.O. Box 115526

Juneau, AK 99811-5526

RE: UCIDA Agenda Change Request and Genetic Stock Composition in the Kodiak Management Area

Dear Board of Fish members:

I'm a concerned fisherman in Kodiak who doesn't see that the UCIDA proposal meets the criteria for an agenda change request, IE there is no error in regulation, no new conservation concern, and it wouldn't be correcting an unforeseen affect on a fishery. When the management plans were developed 1950s to 1989 the idea that Kodiak does catch some Cook Inlet fish and that this is a mixed stock fishery was factored in with the best data available. The new study isn't enough to say that this is new information in light of the fact that Cook Inlet fishermen stated their case in early 1990's and were rejected. This is a traditional fishery.

My personal concern is that I'm a young business owner and have made a business plan enter this historic fishery in Kodiak after being a deckhand and learning from older fishermen in the traditional way. This business that I own and employ crew for depends on the fact that we can fish from early June to mid Sept. It takes that long to make a season of it. If the west side of Kodiak is closed or significantly shut down late June to July 25, how am I supposed to keep workers around without a fish coming in? How are the processors supposed to do the same?

Please also consider than I'm one of the remote residents who lives in bush Alaska with my year round home in Village Islands, Uganik Bay where my setnet site is also located. There aren't any other jobs to be had - this is a fishing community as is most of the island. There are limited jobs and salmon fishing encompasses much of the population's income in the crucial summer months. Shutting down the west side is less damaging to seiners as they can go to the eastside but by law, setnetters aren't allowed to move to the east side.

As part of vertical integration to the catching side of fishing, I have also started a direct marketing business (Soul Mate Salmon) that may not survive if you shut down the west side of Kodiak for the proposed time frame. It's a new business I'm building to try and generate enough income to subsist on salmon fishing, and it is based on the current ADFG management plan, which was developed under intense scrutiny using information about Cook Inlet bound fish in the mix. You change the management plan, and I lose everything.

If this proposal were to go through, you would have closures that promote build up for terminal area fishing that supports seiners where they can mop up quickly any quota or caps. As setnetters, we need consistent consecutive days that balance out the gear types in Kodiak. Incidentally this promotes high quality fish processing that isn't built up sitting on the docks, which the world demands. I haven't caught a large bodied "Cookie" in years and I want ADFG to have tools properly manage our entire fishery (all species) not handcuffed by the growing greedy population of Anchorage/Soldotna, which has political power. To put it in perspective, it is important to know that this "issue" of Cook Inlet bound fish in Kodiak waters amounts to only 1% of our total catch of all species, while we are actively catching all other species at the same time.

To consider this out of sequence request based on a very limited genetic study is unthinkable. To make such decisions without a thorough and large study that incorporates the entire Island and gives all stakeholders a chance to study the science and become truly informed and provide their knowledge and comments is irresponsible. I trust you to do the right thing and not hear the proposal until 2020.

Sincerely,

Tollef Monson

Uganik Bay Setnetter

Tom Springer
PO Box 1790
Kodiak, AK 99615

September 25, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
PO Box 115526
Juneau, AK 99811-5526

RE: UCIDA Agenda Change Request and
Genetic Stock Composition of Sockeye Salmon in
the Kodiak Management Area

I adamantly oppose the UCIDA agenda change request because it does NOT meet the Boards agenda change request criteria for the following reasons:

1. The KMA genetic stock composition study does not present any “new information” that corrects an effect on the fishery that was unforeseen when the management plan was adopted.
2. Cook Inlet sockeye caught in Kodiak does NOT create a conservation concern or have any conservation purpose or reason.
3. Therefor there is NO error in regulation that needs correcting.

I started fishing on the Westside of Kodiak in 1968. Our family has been involved in this fishery ever since. In my 49 years of being involved in the fishing industry I have seen high years and low years. Set net fishing on the Westside is our families main source of income. 65-69% of our total income is caught during the June 23-July 31 time frame. This loss of income would devastate our family. As we live in a small rural area, our choices for offsetting this loss of income with an alternate source is non existent. You would in effect be taking away my livelihood and those of many others. The economic impact on our town would be catastrophic!

This Agenda Change Request does not make any sense for several reasons. The long closures will force the fleet into the inner bays which are only accessible by the seine fleet thereby eliminating the right of set net areas to catch any fish. The quality of the fish will deteriorate as well.

Kodiak fisheries is a historical fishery. We are not fishing in any new areas. Many years ago our seasons fluctuated quite a bit more than they do now. I believe this is due to our Kodiak Management Area management plans affectively focusing on our local streams and stocks.

The UCIDA agenda change request does NOT meet the Board of Fisheries Agenda Change Request criteria. The Kodiak Management Area genetic stock composition study does NOT present any “new information” that “corrects and effect on the fishery that was unforeseen when the regulation management plan was adopted” nor does Cook Inlet sockeye caught in the Kodiak area create a conservation concern or have conservation purpose or reason. Moreover, there is no error in regulation that needs correcting.

Sincerely,

Tom Springer

Received Fax : Aug 31 2017 2:27PM Fax Station : HP LASERJET FAX

08-31-17;02:25PM;From: To:19072672489 ;9072562080

Tuntutuliak Traditional Council
PO Box 8086
Tuntutuliak, Ak 99680
Phone (907)256-2128; fax (907)256-2080

RESOLUTION 17-08-03

A RESOLUTION TO KEEP THE CHINOOK SALMON FISHING OPEN ON THE MOUTH OF JOHNSON RIVER, KIALIQ RIVER, KINAK RIVER, TAGYARAQ RIVER AND PAILLEQ RIVER.

WHEREAS, the Tuntutuliak Traditional Council is a federally recognized Tribal Governing body for the Native Village of Tuntutuliak; and

WHEREAS, the Tribal Council is a Tribal Entity organized for the purpose of leadership and program operations for the Native Village of Tuntutulaik; and

WHEREAS, the Village of Tuntutuliak has always been active subsistence gatherers of the different species of salmon most importantly chinook salmon which are gathered for keeping families fed thoughout the long winters;

WHEREAS, the Village of Tuntutuliak sees the need to keep the mouth of the Johnson river, Kialiq river, Kinak river, Tagyaraq river and Pailleq river open for subsistence users from all the surrounding villages around Bethel; and

WHEREAS, the subsistence gathering for households meets their catches each year without over catching; and

NOW THEREFORE BE IT RESOLVED, the Tuntutuliak Traditional Council opposes the resolution formulated by Kalskag requesting closures to the mouths of the Johnson river, Kialiq river, Kinak river, Tagyaraq river and Pailleq river due to the fact that Chinook salmon do not go up to these rivers to spawn.

CERTIFICATION

Passed and approved by a constituted quorum of the Tuntutuliak Traditional Council on this 14th day of August, 2017, by a vote of; 4 in favor, 0 opposed, and 0 abstaining.

Roland White, President

John Fitka

John Fitka, Secretary

United Southeast Alaska Gillnetters (USAG) submitted a proposal for the Board of Fisheries' (BOF) January meeting but it was deemed not worded as regulation language and we are told it will be a discussion item for this work session. It is our wish that the BOF create a task force (or use the current Joint Regional Planning Team) to look at allocation based on overall value to each commercial user group. Previous BOFs have discussed how many overlapping Southeast allocation plans and historic sharing percentages of wild and enhanced fish affect each other.

Generally BOF proposals ask this board to look at a specific gear groups' side of an individual allocation plan to support their particular position or imbalance while ignoring other fleets' shortfalls in other areas. It is not our intent to ask you to look at things from one position, rather to look at the whole picture to see long term trends. It would be an injustice to shift value from one gear group to another to satisfy one allocation plan while ignoring that effect on another gear groups' traditional economic viability. USAG does not wish to gain another fleets' share of the pie through a value grab, only to maintain our traditional harvest sharing percentages by working together with the other commercial gear groups.

Currently, fleets below their allocative range of enhanced fish have been allowed increased opportunity to harvest them in common property fisheries. The consequence of this is that wild fish harvested in this increased opportunity are not counted as a value shift in the Enhanced Allocation Plan. The Enhanced Allocation Plan first adopted in 1994 has been in place well over 20 years, yet large imbalances still occur. This and every plan should be reevaluated to see if the assumptions and predictions made were correct and to take into consideration unintended consequences of those actions. The attached "*Southeast Alaska Enhanced Salmon Allocation: A Twenty-year Retrospective"* is an informative draft analysis of the Plan.

The accompanying data provided by ADF&G looks at salmon contributions to the user groups in three ways, natural production/wild, hatchery-produced/enhanced and overall by year, and as a five-year rolling average (comparable to how we look at enhanced alone). The five-year rolling average helps smooth out the highs and lows and shows long term trends. If you look at the overall value from 1994 when the Enhanced Allocation Plan was formed to 2016, you will notice that seine value has gone up, troll down and gillnet is constant, yet according to the Enhanced Allocation Plan the seine is just below their allocative range.

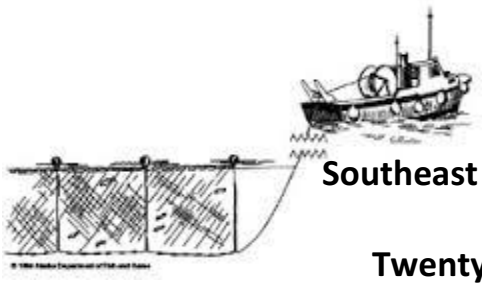
The problem we perceive is a gear group below their enhanced allocation range can gain value according to the Enhanced Allocation Plan, which would increase their share of the overall value. It is doubtful that the intent of the Plan was to allow for economic growth of a particular gear group at the expense of another yet this is now the case. We feel that incorporating overall value into the Enhanced Allocation Plan where a gear group trending downward in overall value would be allowed increased enhanced opportunity, is a fair system in that it protects each gear groups' current and historic economic share of the region's harvest.

Currently, representatives on Joint Regional Planning Teams and Regional Aquaculture Associations' Board of Directors are only allowed to discuss allocation based on enhanced fish yet many of their decisions also involve wild interception. These are likely to be the same fleet-elected leaders to make up this proposed overall value task force as well.

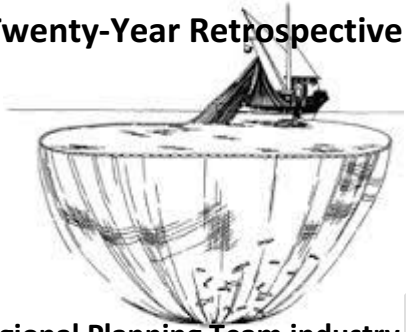
	Total Ex-vessel / Overall Salmon Values				Ex-vessel value in five-year rolling averages		
	Seine	Troll	Driftnet	S+T+DGN Total	Seine	Troll	Gillnet
1985	$52,018,934	$25,009,669	$17,083,901	$94,112,504			
1986	$53,893,815	$28,074,767	$14,585,793	$96,554,375			
1987	$22,739,529	$25,368,212	$19,227,191	$67,334,932			
1988	$53,314,374	$29,827,740	$32,342,986	$115,485,100			
1989	$91,241,060	$23,526,234	$20,578,737	$135,346,031	54%	26%	20%
1990	$44,821,503	$31,101,694	$16,439,366	$92,362,563	52%	27%	20%
1991	$36,071,105	$25,162,099	$12,037,061	$73,270,265	51%	28%	21%
1992	$51,054,882	$29,351,980	$20,850,361	$101,257,223	53%	27%	20%
1993	$52,894,318	$26,642,558	$15,904,271	$95,441,147	55%	27%	17%
1994	$61,164,567	$38,943,302	$17,207,769	$117,315,638	51%	32%	17%
1995	$55,806,812	$16,673,792	$16,899,040	$89,379,644	54%	29%	17%
1996	$42,813,455	$16,394,667	$14,430,995	$73,639,117	55%	27%	18%
1997	$40,813,997	$18,853,651	$11,143,699	$70,811,347	57%	26%	17%
1998	$45,509,746	$14,974,147	$11,345,286	$71,829,179	58%	25%	17%
1999	$56,402,089	$20,442,587	$11,489,118	$88,333,794	61%	22%	17%
2000	$38,060,764	$14,786,178	$10,940,909	$63,787,851	61%	23%	16%
2001	$48,742,800	$17,191,517	$11,316,836	$77,251,153	62%	23%	15%
2002	$20,244,170	$13,164,474	$8,132,853	$41,541,497	61%	24%	16%
2003	$26,705,739	$14,812,555	$8,903,210	$50,421,504	59%	25%	16%
2004	$31,672,452	$29,016,910	$11,778,867	$72,468,229	54%	29%	17%
2005	$36,073,649	$26,770,816	$12,753,519	$75,597,984	52%	32%	17%
2006	$27,536,028	$34,645,633	$20,007,955	$82,189,616	44%	37%	19%
2007	$49,646,050	$30,985,116	$15,081,267	$95,712,433	46%	36%	18%
2008	$40,986,039	$36,566,992	$24,209,429	$101,762,460	43%	37%	20%
2009	$48,417,377	$22,942,077	$18,578,453	$89,937,907	46%	34%	20%
2010	$56,238,100	$31,945,182	$26,618,998	$114,802,280	46%	32%	22%
2011	$122,177,082	$32,413,206	$31,126,506	$185,716,794	54%	26%	20%
2012	$73,082,389	$29,855,484	$37,475,213	$140,413,086	54%	24%	22%
2013	$154,063,995	$41,312,132	$29,456,345	$224,832,472	60%	21%	19%
2014	$58,358,331	$46,554,302	$28,379,708	$133,292,341	58%	23%	19%
2015	$55,228,071	$25,793,745	$20,621,205	$101,643,021	59%	22%	19%
2016	$36,497,295	$32,187,715	$22,194,539	$90,879,549	55%	25%	20%
1985-93 Average	**$50,894,391**	**$27,118,328**	**$18,783,296**	**$96,796,016**			
Percentage	**53%**	**28%**	**19%**				
Allocation Plan Percentages 5 AAC 33.364	44-49%	27-32%	24-29%				
'94-'16 Average Ex-vessel	**$53,314,826**	**$26,401,138**	**$18,264,857**	**$97,980,822**			
Percentage 1994-2016	**54%**	**27%**	**19%**				

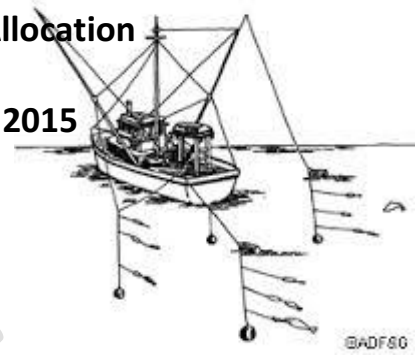
	Hatchery-Produced Salmon Values				Allocation value in five-year rolling averages		
	seine	troll	gillnet	Yearly Value	Seine	Troll	Gillnet
1985	$3,428,844	$1,420,786	$1,200,076	$6,049,706			
1986	$2,770,790	$2,400,444	$1,245,862	$6,417,096			
1987	$4,298,648	$1,460,796	$1,426,244	$7,185,688			
1988	$5,475,727	$1,987,416	$4,547,547	$12,010,690			
1989	$2,718,810	$1,599,441	$2,323,091	$6,641,342	49%	23%	28%
1990	$2,318,017	$3,774,529	$1,780,854	$7,873,400	44%	28%	28%
1991	$2,353,588	$3,837,368	$2,217,805	$8,408,761	41%	30%	29%
1992	$6,652,722	$4,782,046	$4,653,863	$16,088,631	38%	31%	30%
1993	$11,089,282	$4,353,481	$4,934,886	$20,377,649	42%	31%	27%
1994	$8,876,576	$5,317,271	$3,797,692	$17,991,540	44%	31%	25%
1995	$14,789,338	$2,871,032	$7,169,053	$24,829,423	50%	24%	26%
1996	$12,061,185	$3,224,761	$4,184,597	$19,470,543	54%	21%	25%
1997	$10,752,998	$3,004,073	$4,037,169	$17,794,241	57%	19%	24%
1998	$9,277,676	$1,973,521	$3,792,912	$15,044,109	59%	17%	24%
1999	$10,061,642	$3,461,492	$4,110,113	$17,633,247	60%	15%	25%
2000	$17,113,326	$3,465,550	$6,219,903	$26,798,778	61%	16%	23%
2001	$7,170,159	$3,752,912	$4,852,294	$15,775,364	58%	17%	25%
2002	$3,645,488	$2,303,490	$3,627,174	$9,576,152	56%	18%	27%
2003	$3,744,188	$2,774,408	$3,385,285	$9,903,881	52%	20%	28%
2004	$5,498,187	$4,139,539	$5,400,059	$15,037,785	48%	21%	30%
2005	$4,405,236	$3,522,736	$4,707,650	$12,635,622	39%	26%	35%
2006	$15,109,033	$4,192,671	$12,215,370	$31,517,075	41%	22%	37%
2007	$6,531,971	$4,728,923	$8,851,525	$20,112,418	40%	22%	39%
2008	$16,158,998	$7,319,611	$16,385,073	$39,863,682	40%	20%	40%
2009	$12,746,563	$4,032,749	$12,255,256	$29,034,568	41%	18%	41%
2010	$17,451,677	$7,215,190	$15,728,240	$40,395,107	42%	17%	41%
2011	$15,430,492	$9,109,654	$20,391,332	$44,931,479	39%	19%	42%
2012	$34,363,203	$8,113,226	$28,453,598	$72,137,175	42%	16%	41%
2013	$24,834,517	$13,266,168	$19,221,485	$57,303,369	43%	17%	39%
2014	$12,912,970	$8,786,771	$17,772,977	$37,637,261	42%	18%	40%
2015	$16,689,459	$6,063,853	$13,068,340	$35,821,652	42%	18%	40%
2016	$10,513,342	$5,018,230	$11,450,087	$26,981,660	43%	18%	39%
1985-'93 Average	**$4,567,381**	**$2,846,256**	**$2,703,359**	**$10,116,996**			
Percentage	**45%**	**28%**	**27%**				
Plan %	44-49%	27-32%	24-29%				
1994-'16 Average	**$12,614,705**	**$5,115,558**	**$10,046,834**	**$27,748,962**			
Percentage	**45%**	**18%**	**36%**				

	Natural Production Values (Ex-vessel minus hatchery-produced)				Natural production value in five-year rolling averages		
	seine	troll	gillnet	total	Seine	Troll	Gillnet
1985	$48,590,090	$23,588,883	$15,883,825	$88,062,798			
1986	$51,123,025	$25,674,323	$13,339,931	$90,137,279			
1987	$18,440,881	$23,907,416	$17,800,947	$60,149,244			
1988	$47,838,647	$27,840,324	$27,795,439	$103,474,410			
1989	$88,522,250	$21,926,793	$18,255,646	$128,704,689	54%	26%	20%
1990	$42,503,486	$27,327,165	$14,658,512	$84,489,163	53%	27%	20%
1991	$33,717,517	$21,324,731	$9,819,256	$64,861,504	52%	28%	20%
1992	$44,402,160	$24,569,934	$16,196,498	$85,168,592	55%	26%	19%
1993	$41,805,036	$22,289,077	$10,969,385	$75,063,498	57%	27%	16%
1994	$52,287,991	$33,626,031	$13,410,077	$99,324,098	53%	32%	16%
1995	$41,017,474	$13,802,760	$9,729,987	$64,550,221	55%	30%	15%
1996	$30,752,270	$13,169,906	$10,246,398	$54,168,574	56%	28%	16%
1997	$30,060,999	$15,849,578	$7,106,530	$53,017,106	57%	29%	15%
1998	$36,232,070	$13,000,626	$7,552,374	$56,785,070	58%	27%	15%
1999	$46,340,447	$16,981,095	$7,379,005	$70,700,547	62%	24%	14%
2000	$20,947,438	$11,320,628	$4,721,006	$36,989,073	60%	26%	14%
2001	$41,572,641	$13,438,605	$6,464,542	$61,475,789	63%	25%	12%
2002	$16,598,682	$10,860,984	$4,505,679	$31,965,345	63%	25%	12%
2003	$22,961,551	$12,038,147	$5,517,925	$40,517,623	61%	27%	12%
2004	$26,174,265	$24,877,371	$6,378,808	$57,430,444	56%	32%	12%
2005	$31,668,413	$23,248,080	$8,045,869	$62,962,362	55%	33%	12%
2006	$12,426,995	$30,452,962	$7,792,585	$50,672,541	45%	42%	13%
2007	$43,114,079	$26,256,193	$6,229,742	$75,600,015	47%	41%	12%
2008	$24,827,041	$29,247,381	$7,824,356	$61,898,778	45%	43%	12%
2009	$35,670,814	$18,909,328	$6,323,197	$60,903,339	47%	41%	12%
2010	$38,786,423	$24,729,992	$10,890,758	$74,407,173	48%	40%	12%
2011	$106,746,590	$23,303,552	$10,735,174	$140,785,315	60%	30%	10%
2012	$38,719,186	$21,742,258	$9,021,615	$69,483,059	60%	29%	11%
2013	$129,229,478	$28,045,964	$10,234,860	$167,510,302	68%	23%	9%
2014	$45,445,361	$37,767,531	$10,606,731	$93,819,623	66%	25%	9%
2015	$38,538,612	$19,729,892	$7,552,865	$65,821,369	67%	24%	9%
2016	$25,983,953	$27,169,485	$10,744,452	$63,897,890	60%	29%	10%
1985-'93 Average	**$46,327,010**	**$24,272,072**	**$16,079,938**	**$86,679,020**			
Percentage	**53%**	**28%**	**19%**				
Plan %	44-49%	27-32%	24-29%				
1994-'16 Average	**$40,700,121**	**$21,285,580**	**$8,218,023**	**$70,203,724**			
Percentage	**58%**	**30%**	**12%**				



Southeast Alaska Enhanced Salmon Allocation
a
Twenty-Year Retrospective 1994 - 2015





Position Statement: Joint Regional Planning Team industry representatives believe the Southeast Salmon Enhancement program has benefitted all gear groups far beyond fishermen's expectations when the Enhanced Salmon Allocation Plan was adopted in 1994. Further, the Plan has been and continues to be an effective tool for measuring success and setting future goals.

This document was developed by the Joint NSRAA & SSRAA RPT members representing the interests of salmon limited entry permit holders. The JRPT consists of two elected representatives from each gear group – trollers, gillnetters, and seiners – the identical gear composition and representation of the original Allocation Task Force convened 1991 to 1994.

Goal: To document enhanced salmon allocation from 1994 to 2015 and the factors affecting gear allocation percentages, whether in terms of underperformance or over-performance. The report is intended to inform the Board of Fisheries and user groups with an examination of the Allocation Plan's assumptions and premises, including the Plan's strengths and weaknesses.

Road Map to the Goal: The objectives to meet these goals are accomplished through an examination of the assumptions which the allocation plan is based, a consideration of premises that are foundational to the Plan, and a review of the enhancement program outputs. To provide some context, in 1991 the enhanced salmon cumulative value was $8 million compared with 2013 when the enhanced value was $50 million. The paper reports enhanced salmon value and percentages, but also analyzes why current results are not what was envisioned in 1994. Therefore the report includes a discussion of exigencies thwarting expected outcomes. Finally, the report provides a description of our vision set in motion in 2014 to solve the allocation imbalance under current regulatory criteria.

Expectations beyond 2017: New production with predicted adult returns starting in 2017 and beyond are outlined; expected impacts on allocation percentages for future five and ten year periods are presented.

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Introduction

Allocation of enhanced fish in southeast Alaska has been considered and debated since the inception of the program in the late 1970s. The discussion was heated enough at the beginning of the nineties that the board of fisheries directed NSRAA and SSRAA (Southeast Alaska Allocation Task Force SATF) to negotiate a consensus agreement. An agreement in 1994 was promulgated by the Board of Fish in #94-02-FB, but later that year updated by including value data tables showing the base period years 1985 – 1991 (#94-148-FB, appendix A). It took many meetings over a period of three years to reach a consensus. Subsequent to 1994, the gear groups have worked together to reach enhanced allocation consensus agreements with reports to the board of fisheries in 2009, 2012, and 2015.

The #94 BoF findings laid out fourteen guiding principles. These principles are pertinent to allocation ranges, agency contribution goals (60% - 70%), protection of wildstocks, program evaluation, marking responsibilities, criteria for action, and types of management actions to be employed to influence value to a gear type out of their lower range. However, the plan did not provide the context in which the plan was written in the late 80s and early 90s, including consideration of traditional fisheries vis-à-vis enhancement plans, explicit acknowledgement of target species for seine and gillnet gear versus troll gear, or inherent gear efficiency differentials (although we posit there was a tacit understanding). In retrospect, there are good reasons for these oversights. This paper will provide that historical context with the advantage of twenty years of knowledge, discovery, and data analyses.

Base Period for Allocation Plan 1985 – 1991

The allocation plan percentage ranges for each gear are based on value of enhanced fish for the period 1985 to 1991. The cumulative value for all gear for all seven baseline years combined was $54 million. The value in 2012 for comparison, a single year, was $74 million and for 2013 it was $52 million. On average the overall value has tripled since 1994 due to increased production and price. During the baseline period trollers caught 71.7% of the enhanced coho and 86.6% of the enhanced Chinook, but only 2.0% of the chum, conversely the net groups caught 97% of the enhanced chum and pink salmon (Appendix A, #94-148-FB) . This is a clear indication of what the 1994 SATF expected in the future given the seven year period upon which the Allocation Plan was based. This is not to say the gear groups considered a prohibition on which gear group caught chum or Chinook, but it certainly supports the idea that based on history the net groups would likely harvest the chum production and trollers would catch the lion's share of coho/Chinook production.

Southeast Allocation Base Period 1985 - 1991 (#94-148-FB)				
Species		Total Value		Percent
Coho				
	Troll	$	10,775,635	71.7%
	Seine	$	1,626,678	10.8%
	Gillnet	$	2,616,161	17.4%
Chinook				
	Troll	$	4,559,573	87%
	Seine	$	260,671	5%
	Gillnet	$	446,040	8%
Chum				
	Troll	$	521,184	2%
	Seine	$	17,265,856	66%
	Gillnet	$	8,261,208	32%
Pinks				
	Troll	$	124,857	3%
	Seine	$	2,377,096	65%
	Gillnet	$	1,173,472	32%
Sockeye				
	Troll	$	119,287	3%
	Seine	$	1,856,903	44%
	Gillnet	$	2,220,614	53%
	Total	**$**	**54,205,235**	

Table 1. Summary portion of table from board of fish #94-148-FB showing 1985 – 1991 enhanced salmon cumulative total values by species, gear, and percentages for each species. The base period shows trollers catching 72% and 87% of coho and Chinook respectively. The net groups caught 98% of the chum salmon or 47% of the total cumulative value.

The 1995 RPT minutes state, "(Mr. Ken) Duckett added that if Snettisham (hatchery) were to come on line, it undoubtedly would throw the allocation numbers "out" (gillnet above target range) and the Joint RPT would have a significant job on their hands getting them back into compliance. (Mr. Scott) Marshall (regional commercial fish supervisor) commented that the "jury was out" for Snettisham until they could see how many fish they were getting back and how they were distributed; when it showed up in the data they would deal with it then." While the Snettisham Hatchery did not perform as feared/hoped as conveyed in this statement, another DIPAC program producing chum salmon did 'throw the allocation numbers out'. The outcome predicted in 1995 came to pass, but with a different species. This is an example of one unforeseen consequence; there are many more that will be examined.

It was clear to the SATF members that the future troll allocation was dependent on a high Chinook interception. Even with that presumption they predicted that trollers would be well below their allocation range. Specifically in the 1994 finding #94-148-FB SATF predicted at full production the trollers would attain 21.2% of the enhanced value, although in 1994 trollers were at 29.7%. The

document also considered future production that was in the works in 1994; this also predicted the trollers would be well below their range. In both of these scenarios (presented below) the total value of enhanced salmon was predicted to increase significantly with the gillnet proportion rising and the troll falling. Therefore, it appears the SATF, agreed upon the gear group ranges while at the same time predicting gear group values that would not attain the gear balances they envisioned.

		Southeast Allocation Base Period 1985 - 1991 (#94-148-FB)					
Species	**Gear**	**Annual Full Production Value**	**Annual Full Production Percent**	**Total**	**Value**	**Future Percent**	**Potential Total**
Coho				$ 4,201,270			$ 4,201,270
	Troll	$ 3,021,781	71.9%		$ 3,021,781	71.9%	
	Seine	$ 540,786	12.9%		$ 540,786	12.9%	
	Gillnet	$ 638,703	15.2%		$ 638,703	15.2%	
Chinook				$ 5,473,259			$ 9,433,951
	Troll	$ 4,773,109	87.2%		$ 7,400,573	78.4%	
	Seine	$ 359,042	6.6%		$ 944,601	10.0%	
	Gillnet	$ 341,108	6.2%		$ 1,088,777	11.5%	
Chum				$ 24,632,796			$ 24,632,796
	Troll	$ 293,658	1.2%		$ 293,658	1.2%	
	Seine	$ 16,010,792	65.0%		$ 16,010,792	65.0%	
	Gillnet	$ 8,328,346	33.8%		$ 8,328,346	33.8%	
Pinks				$ 2,197,761			$ 2,197,761
	Troll	$ 57,882	2.6%		$ 57,882	2.6%	
	Seine	$ 1,370,607	62.4%		$ 1,370,607	62.4%	
	Gillnet	$ 769,272	35.0%		$ 769,272	35.0%	
Sockeye				$ 2,150,892			$ 7,557,008
	Troll	$ 51,810	2.4%		$ 112,610	1.5%	
	Seine	$ 953,598	44.3%		$ 1,283,040	17.0%	
	Gillnet	$ 1,145,484	53.3%		$ 6,161,358	81.5%	
All Species				**$ 38,655,978**			**$ 48,022,786**
	Troll	$ 8,198,240	**21.2%**		$ 10,886,504	**22.7%**	
	Seine	$ 19,234,825	**49.8%**		$ 20,149,826	**42.0%**	
	Gillnet	$ 11,222,913	**29.0%**		$ 16,986,456	**35.4%**	

NOTES:
1. Current annual production includes permited capacity on existing ongoing projects using assumed survival rates and average prices, weights
2. Future production includes Deep Cove Chinook, Snettisham sockeye, and Chilkat Lake sockeye enhancement
   Chilkat will produce 264,000 sockeye: 250,800 to gillnet, 13,200 to seiners
   Snettisham will produce 320,000 sockeye: 288,000 gillnet, 32,000 seiners
   Beaver Falls and Klawock will produce 259,000 sockeye: 123,000 gillnet, 130,000 seine, 5,000 troller (current production)
   Deep Cove will produce 75,000 harvestable Chinook: 55,250 troll, 14,400 seine, 5,250 gillnet
3. AAI (Alaska Aquaculture Inc) added November 1992: 300,000: gillnet 239,000, seine, 61,000 chum
4. Future potential is a best guess of what might happen. It is not an allocation.

Table 2. SATF table of full production and potential production enhanced values by gear, species and proportions. The table shows large increases in Chinook catch by trollers and large sockeye harvests, neither of which came to pass. Chum value was predicted to be strong which was correct although it was under forecasted.

Premises & Assumptions

A fundamental premise of the 1994 Plan was trollers would continue to catch high quality Chinook and coho at relatively high prices, and eventually at considerably higher abundances (Table 2). Contained in the board of fish finding was an expectation from the proposed program at Deep Cove, southwest Baranof Island: "Deep Cove will produce 75,000 harvestable Chinook: 55,250 troll, 14,400 seine, 5,250 gillnet". Net groups were expected to harvest lower priced pink and chum salmon for the most part, also eventually at greater abundances. The assumption that enhancement programs could produce 100,000 catchable chinook for the troll fleet was thought to be attainable. The net fleet side of the calculation depended on production increases of chum salmon at large volumes with prices in the thirty cents per pound range.

In the SATF report there are notes quantifying production of sockeye at Chilkat Lake, Snettisham Hatchery, and Beaver Lake Hatchery, none of which came to fruition. The report also states that 75,000 harvestable Chinook will be produced at Deep Cove on eastern Baranof Island. Of all these programs only Snettisham became reality, although with mediocre marine survivals and modest harvest rates for the gillnet fleet.

In the 1993 paper *Allocation of Enhanced Salmon* by Don Amend, SSRAA general manager and support staff for the SATF, noted "….forecasting the future, one makes certain assumptions which may or may not be true." This was a prescient observation, because in fact the premises were faulty, even if admirable. Coho and Chinook prices fell due to competition with farm fish while chum prices initially fell but ultimately rose to unprecedented and sustained high levels for years 2010 to 2014. Price was only one factor and perhaps not the most important.

An additional factor that compromised the outcome was moderate to low exploitation rates on coho and Chinook by the troll fleet. Salmon escaping the troll harvest end up in the terminal area where they exacerbate the allocation inequity due to terminal harvest by the net fleets which take advantage of a 'mop up' fishery. Terminal mop up generally does not work for the troll fleet because salmon are motivated to spawn rather than feed once close to their natal freshwater.

Marine survival of chum salmon varied greatly among facilities in the early 1990's. DIPAC (traditional gillnet area) in the 90's had 0.5% to 1% marine survivals while Hidden Falls (traditional seine) survival was 4% to 7%. Many assumed DIPAC production would not be much of a factor in the future. The current reality is DIPAC production since 2010 is double to triple that of Hidden Falls, resulting in rising gillnet catch and falling seine harvest.

Value Assumptions 1994

Dr. Amend cited in the 1993 report, "because the troll fleet harvests the higher value fish, they actually will receive more value than either of the two net groups." This statement discounts volume affects and assumed continued wide price disparity between troll and net caught salmon. Both assumptions were incorrect. In terms of total value, high volume chum harvest by gillnet and seine can and does overwhelm low volume and high value coho/Chinook harvest by the troll fleet.

Historical Context

U.S./Canada Pacific Salmon Treaty

The Pacific Salmon Treaty was signed in 1985. Alaska trollers in particular suffered major cuts in their traditional harvest. Commitment to the Pacific Salmon Treaty (PST) required the loss of fishing opportunity to the Alaska troll fleet. The historical chinook salmon catch at that time was reduced by 100,000 fish annually. The U.S. Congress originally intended that Alaskan enhanced production would mitigate this loss, but early enhancement programs fell short of this 100,000 goal by some sixty percent. Unfortunately, this continues to be true for enhanced Chinook through the two thousand ought's and teens.

The PST agreement negatively affected the harvests' of the net groups but not nearly to the extent of the troll fishery. Most troll Chinook originate as smolt from Washington, Oregon, and British Columbia rivers and hatchery programs but grow to adults in the North Pacific and Alaskan waters, whereas the majority of gillnet and seine harvest is produced from southeast Alaskan streams and enhancement programs. This reality is highly significant to the troller's attainment of their allocation.

Pacific Coastal Salmon Recovery Fund

Traditional Alaska troll fish were Chinook and coho. When the Alaska enhancement programs could not meet the PST Chinook obligation in the 1990's, the Pacific Coastal Salmon Recovery Initiative (1999) was put forward to fund enhancement programs targeting production of coho salmon, sometimes called 'Chinook equivalents'. PST and Pacific Coastal Salmon Recovery mitigation monies amounting to $30 million was primarily directed toward constructing Chinook and coho capital projects throughout southeast Alaska. The coho programs have demonstrated greater success for the trollers in the sense of harvest and exploitation rates, although when trollers cannot catch all the enhanced coho or chinook on the ocean or in mixed stock areas, the 'uncaught' coho filter through to the net fisheries and terminal harvest areas.

Magnuson-Stevens Act

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 was of less direct impact to trollers than the Pacific Salmon Treaty but it still had import, positive and negative. The two hundred

mile limit helped conserve Alaska stocks especially immature and adult Chinook salmon. In addition, the Act established federal area management zones to the twelve mile limit from Cape Suckling to Dixon Entrance. Foreign high seas gillnetting continued to vex enforcement into the 2000's although seems to be under control. However, trollers were forced off portions of federal waters for non-Alaska stock conservation, areas that were traditional fishing areas. Enhancement programs were expected to mitigate federal and state harvest strictures.

Farmed Salmon Industry

Alaska set the salmon market price for decades even into the early 1980's when Alaska controlled over sixty percent of the world harvest of salmon. During this period salmon farming in Norway and elsewhere had little effect on Alaska salmon prices. By 1994 that was beginning to change in a significant way; by 2000 farmed salmon usurped Alaska's market position and consequently prices plummeted for all salmon, especially coho. Trollers responded in a variety of ways, competing in high volume, round chum fisheries (neither gutted nor bled) was one alternative.

Commensurate with this period in the new century was a major marketing effort by Alaska Seafood Marketing Institute (ASMI) to differentiate Alaska salmon from farmed salmon by accentuating Alaska salmon's wildness, pristine waters, higher omega-3s, and natural life cycle. The negatives of farmed salmon were also featured to heighten the contrast. By 2010, world markets responded to this campaign and Alaska salmon was back on top in value terms, especially troll caught Chinook.

Southeast Alaska Comprehensive Salmon Enhancement Plan

The Comprehensive Salmon Plans (Phase I & II) were the chief salmon planning and production documents beginning in the late 1970's and continuing through the 1990's. A complete revision of the Comprehensive Salmon Plan (CSEP): Phase III was published and signed by the ADF&G commissioner in 2004. The CSEP continues to be the official umbrella document for enhanced salmon as delineated in AS 16.10.375. The CSEP and updates set production targets for Alaska's five Pacific salmon species, listed specific projects for future development, and delineated gear group target species. As production of chum surpassed the original CSEP goals and Chinook goals could not be attained, the Allocation Plan took center stage in the 2000's as the political and production driving force. Nevertheless, it is informative to review CSEP narrative for an understanding of gear group imperatives.

In the 1980 Comprehensive Salmon Plan (Phase I, pg 49), under the section *User Group Needs and Aspirations*, "Both NSRAA and SSRAA found that power trollers as well as hand trollers preferred Chinook and coho (production). NSRAA's gear group committee placed top priority on Chinook. The major reason was the severely depressed Alaskan chinook stocks and the importance of avoiding dependence on non-Alaskan stocks."

Phase II of the CSEP, December 1982, "…the northern and southern regions of Southeast present independent action plans to meet the common goals and harvest objectives." These action plans are derived by each of the five species and forecast future harvests by gear and species. Seine and gillnet forecasted sockeye, chum, and pink harvests, but no mention of coho or Chinook and conversely, trollers lay out harvest expectations for Chinook and coho and no other species.

The planning documents of the 80's and 90 set a direction for program development by species and harvest type. The momentum and support for them carry forward to the current day, although shifts in target species, prices, and allocation have altered expectations of these founding documents.

The Joint Regional Planning Team recognized as early as 1997 that what was predicted for trollers in 1994 was coming to be. The history was documented in the 2004 Phase III CSEP:

> "…..by 1997 the 5-year moving averages for seiners and trollers had been substantially out of the allocation range for two consecutive years, and the Joint RPT believed the imbalance was likely to continue. Rather than wait until the mandated trigger point for taking corrective measures, the Joint RPT held a workshop early in 1998 to explore ideas and proposals to alleviate the imbalance. The workshop helped to clarify the applicability, strengths, weaknesses, and limits of the allocation regulation……the following conclusions were drawn:
>
> - The current method used by CFEC to compute the price per pound value of enhanced fish, while resulting in imperfect data, is the best method available.
> - Changes in *marine survival and exvessel price of fish*, benefitting some species and harming others, had dramatically changed the distribution of benefits.
> - For *Chinook salmon, the troll fleet's primary target*, significant decreases in marine survival rate, number released, and price per pound resulted in decreased benefit the troll fleet
> - For *chum salmon, the seine fleet's primary target*, increased hatchery releases, amplified by an extraordinary increase in marine survival rate, overrode a decline in price per pound to provide the increased benefit to the seine fleet.
> - Marine survival and price of fish are factors outside the control of the enhanced fish producers, ADF&G, and the Board of Fisheries.
> - Remedies should focus on improving troll harvest. The troll representatives on the RPT expressed the opinion they were catching as many fish as they could, given the U.S./Canada treaty restrictions, and *were not interested in taking fish away from other gear groups*. The distribution of coho and Chinook catch between gear types has remained relatively constant."

Traditional Chinook and coho troll fisheries were low volume compared to net fisheries, and considered a higher quality product that brought more value. Chinook and coho were, and still are, marketed as individually caught, bled, iced, high fat content omega-3 oil salmon, and delivered to the dock as Alaska's best. Volume net fisheries were not expected to compete on a quality basis.

Analyses of Assumptions and Premises

Fundamental Premise of 1994 Allocation Plan

The fundamental belief and focus of enhancement in 1994 was new production of Chinook and coho salmon at Medvejie, Deep Cove, Hidden Falls, Whitman Lake, Neets Bay and Deer Lake program would be developed for trollers, and importantly they would catch a high proportion of that production. At the same time new production for the net groups would be comprised of chum salmon.

The 1997 RPT minutes (page 4) has a quote by Tom Fisher (SATF troll representative), “maybe the percent allocation for trollers was too high – that they might need a wider range to bounce around in”. Ms Denton asked Fisher, as a troller, was he “not dissatisfied?” Fisher said he was not dissatisfied because trollers were not losing value, noting what was happening was that seiners were gaining more value because of more chums in the water.

Results versus Allocation Plan Assumptions

Contrary to expectations, trollers catch a low proportion of enhanced Chinook production (23% (2007-14 average; range 19%-30%)) and a moderate proportion of coho production (37% (2007-14 average; range 30%-51%)). Chinook and coho must bite to get caught by troll gear and in order to get high exploitation rates the majority of the fish need to be available for harvest far from the terminal area. Conversely, the net groups can catch 100% of the enhanced chum salmon production and any coho or Chinook that pass through a terminal or mix stock net fisheries. In fact, to avoid over harvest by seine and gillnet gear in terminal areas the SHA’s must be managed carefully to control harvest. A salmon’s lack of interest in biting once in the proximity of the terminal area is a biological and genetically driven behavior, and has a profound effect on troll exploitation rates as salmon near freshwater spawning grounds, while this biological behavior of salmon has no negative effect on net group harvest rates.

An example of a program designed for trollers is informative. The Neck Lake Coho program located near Sumner Strait, is a summer returning coho of exceptional quality. Due to timing conflict with the summer Chinook season or some inherent stock characteristic, few of these coho are taken by trollers but are highly exploited by the gill fleet in district 6. Rather than ‘fix’ the allocation imbalance the Neck Lake program exacerbated the problem.

Joint Regional Planning Team minutes from the 1997 (page 6) document: (Mr. Ken) Duckett (SATF gillnet representative) said when the Task Force developed allocations, they realized it would take at least 10 years to bring a gear group that was out (of their allocation) into balance; he said it was designed only to trigger solutions over the long term. Dr. Amend concurred with Mr. Duckett, noting the Task Force had been aware the net gear groups would be easier to deal with.

Gear Efficiency

Gear efficiency was not discussed in the development of the Allocation Plan for an obvious reason, and that is the net groups and troll group were targeting different species. It was assumed by simply increasing production of a group's target species the fix or desired result would follow. No one believed in 1994 nor does anyone belief in 2015 that if the three gear groups were expecting to compete for the same species that gear harvest efficiency would not be a fundamental discussion point.

That is not to say trollers cannot catch significant numbers of chum. Average catch rates for chum have been as high as 250 fish per day. A hundred boats could catch 25,000 fish in a single day. Chum salmon became an important troll species in 1993 in Eastern Channel, Sitka showing a catch that year of 450,000. It was the first location where fish behavior, abundance, weather, and the troll fleet merged in perfect harmony; it would not be until 2000 and 2013 for the second and third occurrences at this level, although catches ranged from 24,000 to 300,000 during this twenty year period. The largest total return on record for Medvejie/Eastern Channel chum was 3.6 million fish in 1999, a year when only 67,000 chum were caught by the troll fishery. Abundance is a factor but not the most important factor influencing troll harvest rates on chum salmon. Price plays a large role in a troller's decisions on where they put their effort. Chum prices in 1999 & 2000 were in the $0.18/lb range.

Terminal Area Clean-up Fisheries

In 1993 when trollers had their best year on record in Eastern Channel and could harvest twenty-four hours per day, seven days per week most of the fish still got past the troll fleet and into the terminal harvest area. Over 1.1 million chum were caught by the net groups and cost recovery in Deep Inlet in 1993. Seven years later, in 2000 when the next record troll catch (450,000) occurred, three million chum were caught by the net groups and cost recovery.

Value of Enhanced Salmon - Historical Perspective

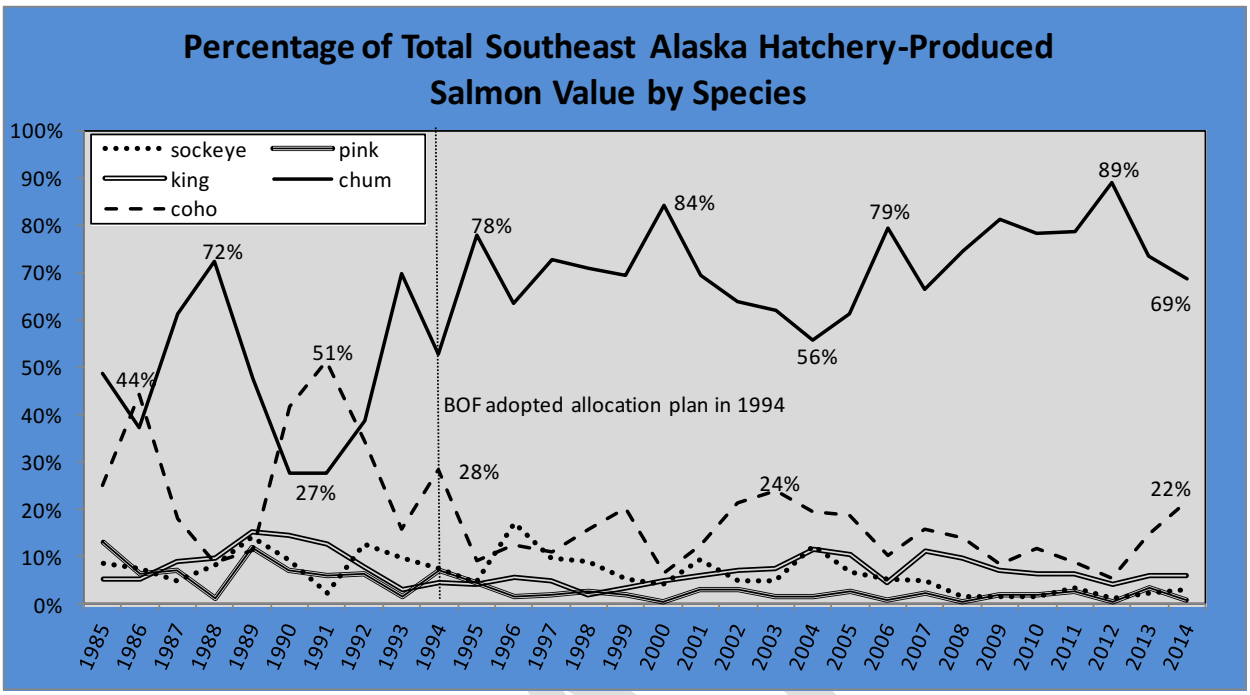


Figure 1. All gear total value for chum harvest represents about 80% in the past twenty years, whereas coho is 15% and Chinook is 5%.

In the 1997 RPT minutes (page 7), "(Mr. Tom) Fisher noted that one of their (SATF) basic faulty assumptions was that the prices for salmon increases and decreases across the board. There is a general trend in salmon prices going up and down, but chum roe can drive prices high when other salmon prices decline.

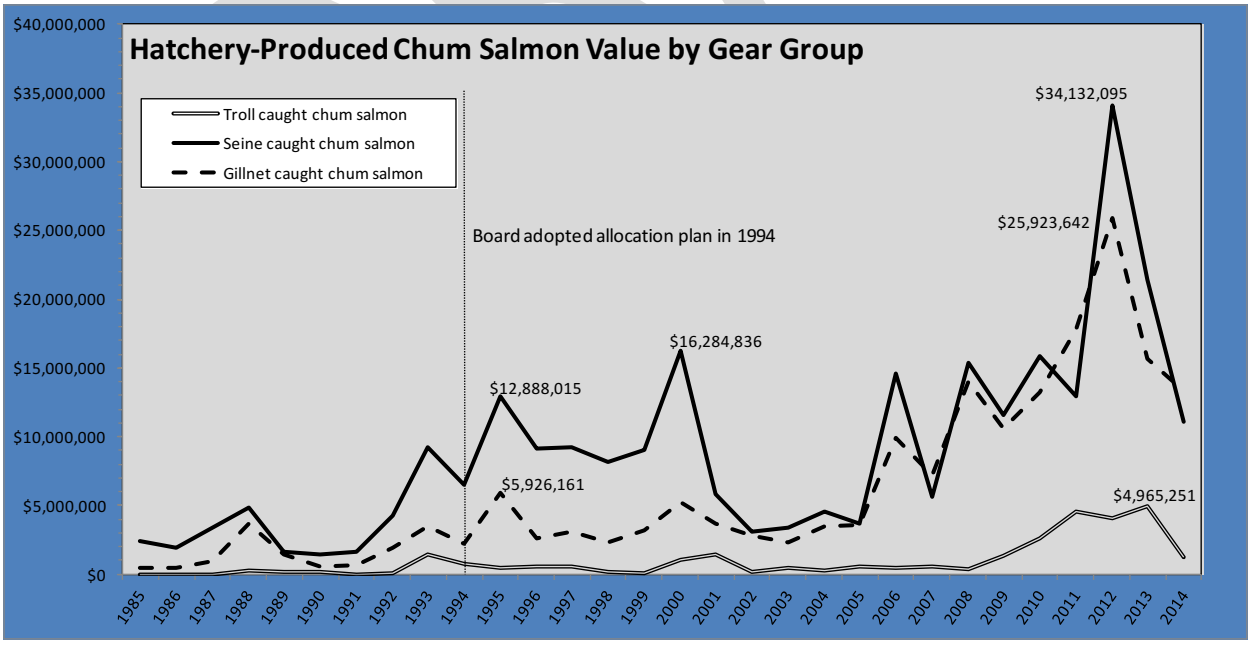


Figure 2. Chum value by gear for 1985 to 2014 shows a strong increasing trend.

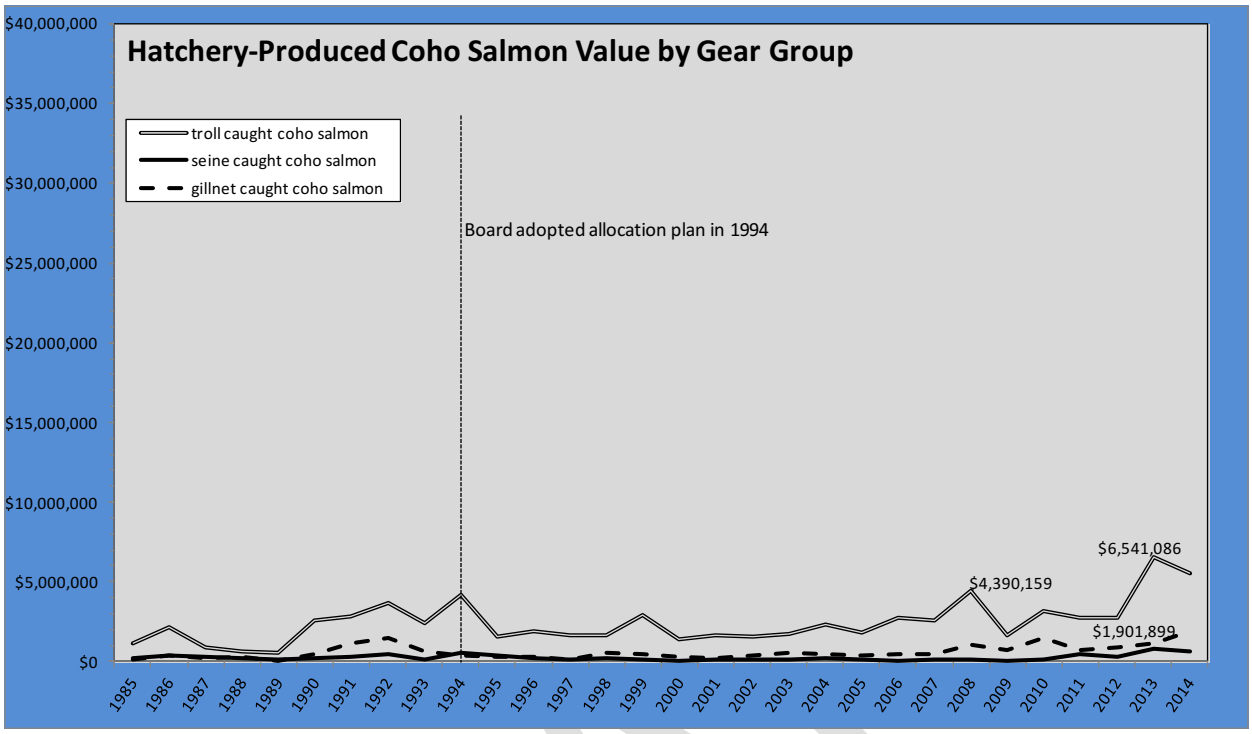


Figure 3. Coho value by gear showing high year value in 2013 for troll at $6.5 million. Note x-axis scale for graph is identical to figure 2 & 4. ADF&G data.

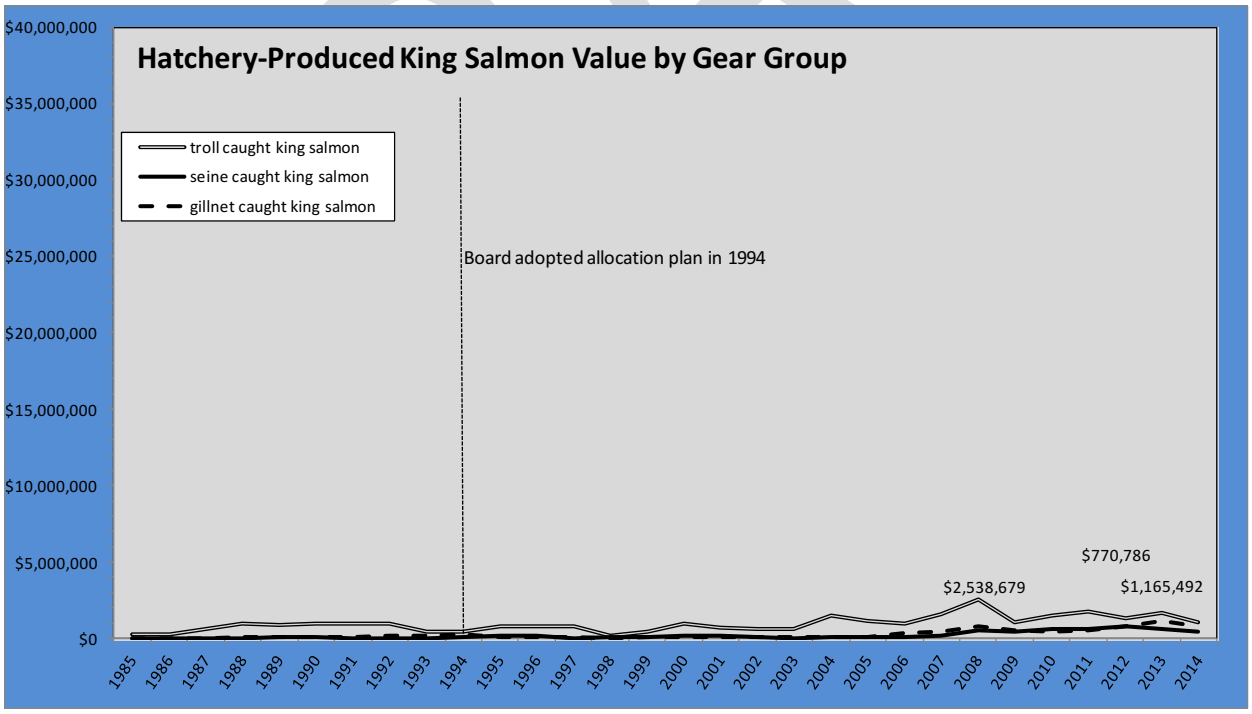


Figure 4. Chinook value by gear showing high value year for each gear group – troll $2.5 million in 2008, gillnet $1.1 million in 2013, and seine $770,000 in 2012. Note x-axis scale for graph is identical to figure 2 & 3. ADF&G data.

Exploitation Rates

Wildstock fisheries are managed for escapement, whether troll fisheries on the ocean or corridor troll, gillnet and seine fisheries. The greater the gear harvest efficiency and exploitation rate in a fishery, the more necessary time and area restrictions become. Troll fisheries occur most of the year and for much of southeast Alaska, whereas net fisheries are restricted primarily to the summer period with time and area protocols, often with one day or two days fishing per week in late June/July to four days per week in late July and August.

Enhanced fisheries are managed differently since they are located in special harvest areas isolated from most wildstocks. Unlike wildstocks, enhancement programs can sustain exploitation rates up to 95%. The result is terminal area fisheries often have seven day per week openings with the expectation that 100% of the fish will be harvested. Intense fishery management of this type also helps minimize straying.

Spring Access and Experimental Troll Fisheries

Spring Chinook fisheries, considered a mixed stock fishery, have been an important component of NSRAA and SSRAA programs. Management and fishing boundaries were developed by ADF&G managers, fishermen, and the regional associations. The spring fisheries have evolved considerably over the past twenty years to maximize Alaska hatchery catch of Chinook and at the same time minimize non-Alaska hatchery catch. Spring access Chinook troll fisheries not only increase catch but value due to low supply and high market demand in May and June. Price usually falls dramatically by the July summer opening for Chinook. These spring fisheries tend to favor local Alaskan fishermen.

The period 2005-2014, trollers harvested 385,200 Chinook in spring troll fisheries. Of this total, 138,500 (36%) were Alaska hatchery fish and 246,700 (64%) were non-Alaska hatchery fish. For each AK hatchery Chinook harvested, an additional 1.78 non-Alaska hatchery Chinook was caught – fish that may have not otherwise been harvested at the higher value. Production of Chinook even with these low Alaska Chinook exploitation rates allows for leverage to prosecute the spring fisheries. Without Alaska Chinook production the spring troll fisheries would not exist and therefore opportunity for the troll fleet during the spring time frame.

Terminal Fish are Genetically Programmed to Spawn, not Bite

The biological imperative of Pacific salmon to spawn limits catchibility for hook and line since the salmon needs to be an active participant in the ‘catch’. Salmon likely do not want to be caught in nets but are ill-equipped to avoid such gear. These factors may be obvious but help explain some of the difficulty of solving the imbalance in allocation.

Catchibility and exploitation rates were not topics considered during the three year long SATF. The expectation was to ‘produce 100,000 Chinook or one million coho and the troll fleet will catch them’. The average all gear harvest from 2005-14 has been 100,600 hatchery Chinook and 881,100 hatchery coho per year; troll harvest on these total has averaged 22,700 (23%) for Chinook and 332,800 (38%) for coho.

Enhancement: Review of the Past Twenty Years

In the past twenty years there has been very little new hatchery construction although major expansions have occurred at existing hatcheries. Program expansion has resulted from greater efficiencies and technological advances. Maximizing facility infrastructure and water use have been at the core of chum, coho, and Chinook expansions. Value to fishermen has increased steadily through the period commensurate with production increases. Infrequently, low price and poor marine survival has worked in concert to lower overall value. Nevertheless, in the past twenty years value has gone from $17.9 million in 1994 to $52.7 million in 2013. The all time record value was over $72 million in 2012.

Summary Table - Annual Value Estimates by Gear

ALL SPECIES	TROLL	SEINE	GILLNET	TOTAL	SOURCE	RANK
1994	$ 5,317,271	$ 8,876,576	$ 3,797,692	$ 17,991,540	ADFG	13
1995	$ 2,871,032	$ 14,789,338	$ 7,169,053	$ 24,829,423	ADFG	10
1996	$ 3,224,761	$ 12,061,185	$ 4,184,597	$ 19,470,543	ADFG	12
1997	$ 3,004,073	$ 10,752,998	$ 4,037,169	$ 17,794,241	ADFG	14
1998	$ 1,973,521	$ 9,277,676	$ 3,792,912	$ 15,044,109	ADFG	17
1999	$ 3,461,492	$ 10,061,642	$ 4,110,113	$ 17,633,247	ADFG	15
2000	$ 3,465,550	$ 17,113,326	$ 6,219,903	$ 26,798,778	ADFG	9
2001	$ 3,752,912	$ 7,170,159	$ 4,852,294	$ 15,775,364	ADFG	16
2002	$ 2,303,490	$ 3,645,488	$ 3,627,174	$ 9,576,152	ADFG	21
2003	$ 2,774,408	$ 3,744,188	$ 3,385,285	$ 9,903,881	ADFG	20
2004	$ 4,139,539	$ 5,498,187	$ 5,400,059	$ 15,037,785	ADFG	18
2005	$ 3,522,736	$ 4,405,236	$ 4,707,650	$ 12,635,622	ADFG	19
2006	$ 4,192,671	$ 15,109,033	$ 12,215,370	$ 31,517,075	ADFG	7
2007	$ 4,728,923	$ 6,531,971	$ 8,851,525	$ 20,112,418	ADFG	11
2008	$ 7,320,371	$ 16,158,998	$ 16,385,073	$ 39,864,442	ADFG	5
2009	$ 4,032,749	$ 12,746,563	$ 12,255,256	$ 29,034,568	ADFG	8
2010	$ 7,215,190	$ 17,451,677	$ 15,728,240	$ 40,395,107	ADFG	4
2011	$ 9,109,654	$ 15,430,492	$ 20,391,332	$ 44,931,479	ADFG	3
2012	$ 8,113,226	$ 35,570,351	$ 28,453,598	$ 72,137,175	ADFG	1
2013	$ 12,717,367	$ 20,863,723	$ 19,128,923	$ 52,710,013	ADFG prelim	2
2014	$ 7,863,185	$ 11,923,318	$ 16,772,454	$ 36,558,957	OPER prelim	6
1994-14 Total	$ 105,104,121	$ 259,182,125	$ 205,465,672	$ 569,751,918		
1994-14 Avg.	$ 5,004,958	$ 12,342,006	$ 9,784,080	$ 27,131,044		
1994-14 Percent	18%	45%	36%	100%		
2014 Percent	22%	33%	46%	100%		
Target	27-32%	44-49%	24-29%			

Table 1. All enhancement program value by gear (all species combined) for 1994 - 2014

The salmon enhancement program has contributed $570 million in exvessel value since 1994. During that period 18% of the value has gone to troll, 45% to seine, and 36% to gillnet. The 2014 estimate moves the troll fleet up a bit to 22% of the value for that year, while seine dropped to 33% and gillnet edged up to 46%.

ALL SPECIES 1994-2013	Troll	Gillnet	Seine	
NSRAA	20%	12%	68%	100%
SSRAA	22%	34%	44%	100%
DIPAC	5%	84%	11%	100%
All others AKI, Klawock, Gunnuk Cr.,	31%	20%	49%	100%
All Combined	18%	35%	47%	100%
Target	27-32%	24-29%	44-49%	

Table xxx. Allocation of salmon within NSRAA, SSRAA, DIPAC, and all others producers combined for each gear type. SSRAA comes the closest to the Allocation Plan ranges. In the 'other' grouping Klawock and Port Armstrong have large coho programs with relatively high troll exploitation rates.

Salmon enhancement organizations have developed under different circumstances and have different site selection opportunities, and therefore each produce a different mix of species and biomass. Port Armstrong for example was developed as a coho and pink salmon facility targeting their coho benefits to the troll fleet and using pink salmon returns to pay the bills. DIPAC was developed as a gillnet organization due to its location in the heart of districts 11 and 15, traditional gillnet areas and has been very effective in benefitting the gillnet fleet.

The regional associations by contrast were developed with boards of directors representing all gear groups and expected to create programs benefiting all common property fisheries. NSRAA has been successful with numerous coho and Chinook programs that benefit trollers, but far less successful getting benefits to the gillnet fleet. Deep Inlet in Sitka Sound, a traditional troll and seine area was opened to gillnetting in 1993 to provide some benefit that would not have occurred otherwise. Other than Deep Inlet and districts 11 and 15 there are no other gillnet areas within NSRAA's purview. Most of NSRAA's districts 9 through 15 are traditional seine and troll areas and the returns to each group reflect that reality.

SSRAA gear contribution proportions are close to the Allocation Plan ranges. The SSRAA programs are centrally located within both gillnet and seine districts. District 1, 6, and 8 mixed stock gillnet fisheries intercept Neets Bay, Carroll Inlet, Neck Lake, and Anita Bay returning fish. Seine fisheries in Clarence Strait, district 1, 2, and 4 also intercept the returns from the same programs. Somewhat by serendipity and partially through design the SSRAA programs attain a gear distribution balance closer to the ideal than any other individual organization.

DIPAC with a $117 million contribution to commercial fisheries is the third largest enhancement organization in southeast Alaska. Initially organized as a gillnet enhancement group it has expanded to produce a fair number of coho and Chinook for the troll fleet and now that its debt has been paid off, they have made large contributions to the seine fleet with openings at Amalga Harbor. Even so, 84% of DIPAC's value goes to the gillnet fleet.

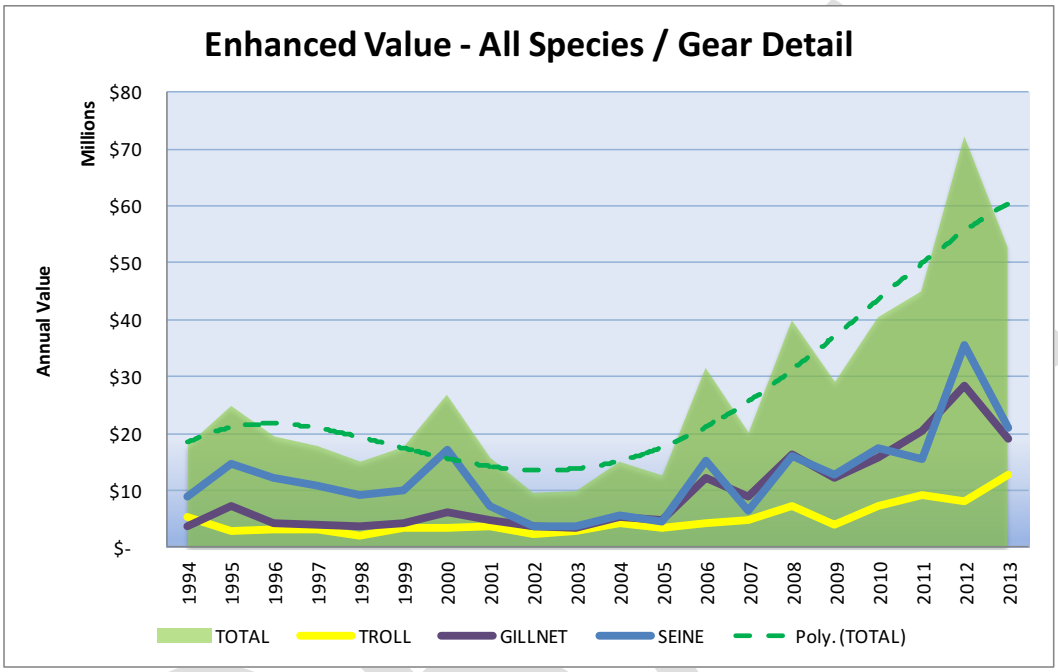


Chart xxx. Annual value for the three gear groups has gone up in aggregate and for each individual gear group. The aggregate trend line is expected to continue for the next decade and then level off by 2025.

ALL Years 1994-2013*				
	troll	gillnet	seine	Grand Total
NSRA	$ 39,611,496	$ 24,005,116	$ 137,976,704	$ 201,593,316
SSRA	$ 38,014,623	$ 57,963,518	$ 76,278,563	$ 172,256,703
DIPAC	$ 5,948,904	$ 98,062,716	$ 13,038,313	$ 117,049,933
REST	$ 13,711,132	$ 8,664,156	$ 21,861,920	$ 44,237,208
	$ 97,286,155	*$ 188,695,506*	*$ 249,155,500*	*$ 535,137,160*

Table xxx. Cumulative value by gear and by enhancement organization for years 1994 – 2013.

Southeast Allocation by Percentage, Five Year Rolling Averages

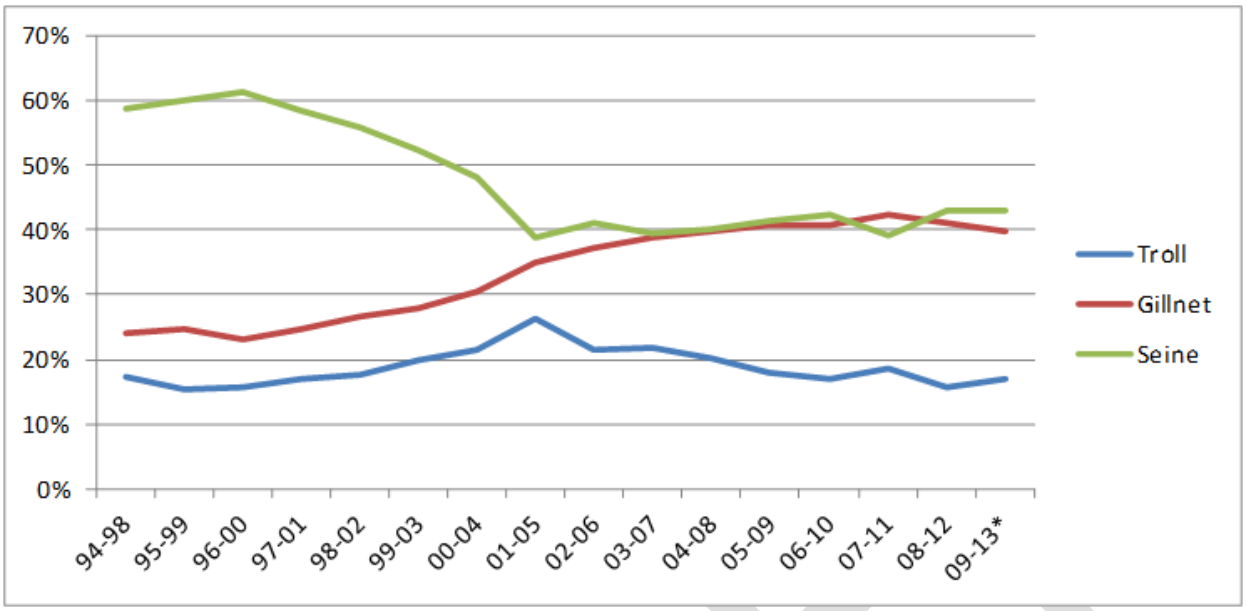


Chart xxx. Five year value rolling average as gear group percentage of total value.

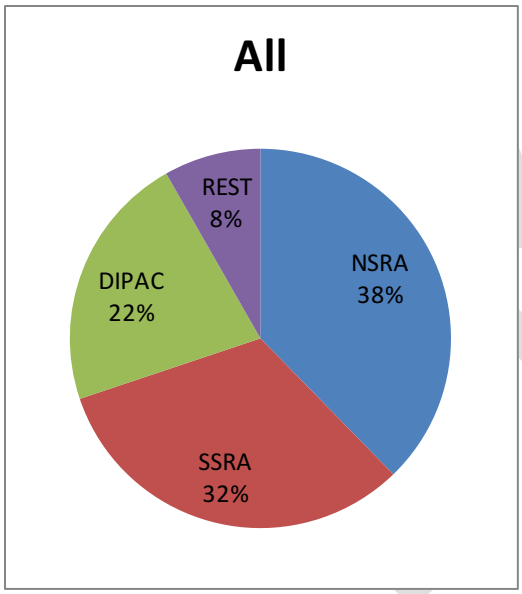


Chart xxx. Proportion of total enhanced value by organization. Rest is composed of Pt Armstrong, Klawock, and Gunnuk Creek hatcheries.

Programs & Management Strategies Implemented to Address Troll Imbalance

Considerable planning and effort has gone into creating new coho, Chinook, and chum programs to improve troll opportunities, value, and harvest in the past twenty years. Many millions of dollars have been spent for new raceways, net pens, incubation space, and other infrastructure to support new salmon production specifically for the troll fleet. Beyond that there have been numerous management changes to increase troll access and opportunity. The following is a bulleted summary of program development, costs, and management structuring by agency to address the troll allocation imbalance.

Northern Southeast Regional Aquaculture Assoc Capital and Operational Changes

Capital Expenditures to Increase Troll Fish since 2000:

- Created new chum production at Crawfish Inlet in 2014 with troll priority, $1.9 million capital outlay
- Create new chum production at S.E. Cove, Kuiu Island in 2012 with troll access priority, $1.5 million outlay so far
- Construction of Sawmill Creek Hatchery for 2 million smolt capacity, $3.0 million construction
- Increase coho production at Hidden Falls from ~2 million to 3 million smolt, construction of new rearing and incubation building at HF to accomplish, $1.2 million capital investment
- Increase coho production at Deer Lake from 1 million smolt to 2.5 million smolt. Capital investment of $200,000 and $550,000 annually operating costs

Program Changes to Increase Troll Fish since 2000:

- Shift 400,000 Medvejie Chinook smolt production release to HPR at troller request
- Shift majority of 2.5 million Medvejie Chinook production to Green Lake where marine survival is highest
- Shift production at HF by decreasing chinook and increasing coho due to a tripling of benefit to cost
- Expansion of Deer Lake project from 1 million to 2 million, and then to 2.8 million fry stocking; consistent production of 2 million smolt, operational cost $200,000
- Stock surplus coho fry in Cliff Lake and Banner Lake
- Backfill shortfalls at Crystal Lake Chinook program with HF Chinook eggs, numerous years
- Obtain permit increases for chum release at Medvejie from 7m to 10m to the current 20m, operational costs $100,000

Management Changes to Increase Troll Fish since 2000:

- Shift line within Deep Inlet during May and June to provide greater area for Chinook troll drag
- Provide for trolling in Eastern Channel during coho troll closure (BoF ~2003)
- Extend troll season in Hidden Falls terminal harvest area every year ADFG extended troll season beyond September 20

- Allow additional coho troll area at Kasnyku and Mist Cove THAs

Southern Southeast Regional Aquaculture Assoc Capital and Operational Changes

- Assume the operation of Deer Mountain Hatchery, including retrofitting the building and fish culture equipment to produce 500,000 chinook a year. Historically KIC produced less than 100,000 fish a year, primarily summer coho. Annual operating budget of about $200,000 a year. Capital costs have been covered by several grants to date, but there will be some expenses on finishing the project. Hatchery will release 100K smolt from Whitman Lake this spring (2015) and accept between 400K and 500K juveniles from Whitman Lake later this spring (2015)

- Reestablish the Carroll Inlet SHA including releasing 400K to 600K Chinook smolt annually. The cost of running the site and tagging the fish will be about $30K to $40K a year, which would also include fish transport. The first release in Carroll Inlet, if all goes well, will take place in the spring of 2016. The first fishery in the SHA should occur in 2018 or 2019.

- Underwrite the POWHA program up to $500K a year through 2016 (2014 through 2016 for a total of $1.5 million). DIPAC has granted two $500K grants toward this program to be administered through SSRAA. In addition to the funding, SSRAA has assisted POWHA with administrative and technical support for the past 5 years or more. POWHA annually releases between 4 and 5 million fall coho smolt. SSRAA is entered in a long term deliberation as to whether to assume the operation of the Klawock Hatchery. If SSRAA takes this course it will involve resolving the $5 million debt owed by POWHA to the State as well as a $700K a year operating budget. If SSRAA does not either take over the facility or continue to underwrite the program, the hatchery association, POWHA, will be bankrupt within several months of that decision.

- Annually provide about 300K Chickamin stock chinook eggs to POWHA for the Port St. Nick hatchery. The fish are released at Port St. Nick and in Coffman Cove. This has been ongoing for the past 7 or 8 years. There is some cost to SSRAA as the required broodstock could have otherwise been sold for cost recovery or caught in common property fisheries.

- Increase fall coho production by 2 million smolt a year. These increases began with SSRAA's 5-year project in Bakewell Lake about 9 years ago. The project involved 500K to 1 million smolt a year that were reared and released in Bakewell Lake. It was a cooperative project with the USFS. With a change in local personnel that project fell out of favor when the 5-year contract was over – Bakewell Lake lies partly in Misty Fjords Wilderness and current USFS no longer support our presence there. The production was to be moved to Connell Lake near Ketchikan.

This was part of the fisherman's agreement preceding the BOF meeting 6 years ago…that SSRAA would increase annual fall coho production by about 1 million smolt. Ultimately the USFS and AK DNR could not decide who had permitting authority for Connell Lake (a reservoir), and though permitted by DNR it was not considered compatible with the current public use designation for Connell Lake. Subsequently, SSRAA increased annual fall coho production by 2 million smolts that are reared in Neck Lake and transported for release at Anita Bay, Nakat Inlet, and Neets Bay.

- Assume full cost of Whitman Lake chinook production despite the loss of $200K a year in state funds in 2014 forward.
- Continue operation of Crystal Lake Hatchery at about $300,000 a year to SSRAA. The original cost to SSRAA was less than $200K a year. The State contribution has been fixed for the past 12 years with all increases in cost going to SSRAA. Crystal Lake is a chinook hatchery.

Management Changes:

- Include trollers in the Kendrick Bay SHA (SSRAA proposal to BOF 2015).
- Open the outer portion of the Neets Bay SHA to chum troll from 2011 forward.
- Propose/Support other troller proposals to leave an area of Behm Canal adjacent to Neets Bay open to coho harvest through September regardless of the general troll closure at an earlier date.
- Open large portions of the Neets Bay SHA to troll in September for fall chum and coho harvest.
- Reestablish the Carroll Inlet SHA for chinook trolling, through spring RPT 2015.

Program changes/issues:

- 1998, added 140,000 coho smolt to Neets Bay release.
- 1999, rear and release 250,000 chinook smolts in Long Lake (drains into Neets Bay).
- 1999, active and intense lobbying effort with governor to keep CLH open when the current SF Director proposed closing the site. Found funding to continue the program through 1999. Negotiated SSRAA's operating the site for SF Division in 2000 with State Administration and Legislative support. At the time SSRAA assumed 1/3 of the direct operating expenses at the site with the State paying 2/3 the cost. Costs have increased since 2000. Currently it costs SSRAA more than $300K annually with the state paying a fixed cost…SSRAA's increase has been more than $100K a year.

- 2001 Increase fall coho production/release by 100,000 fish at Nakat Inlet (most of these fish are caught by trollers).
- 2002 SSRAA adopts a Neets Bay Management Plan that sets 3 priorities: broodstock, cost recovery, and a chum troll harvest of at least 200,000 fish. The chum troll fishery in 2003 harvested 171,000 fish, which was all they were able to harvest (SSRAA did not constrain the harvest)
- 2006 add 8 million summer chum to Anita Bay release and 1 million to Neets Bay.
- 2006 provide 250K to 300K chinook eggs to POWHA for the Port St. Nick facility – release at Port St. Nick and Coffman Cove.
- 2008 Initiate the Bakewell Lake coho project with the USFS (500,000 to 1 million coho smolt annually).
- 2009 Joint RPT/Fisherman's proposal for the BOF: retrofit Burnett Inlet Hatchery to accommodate 22 million additional summer chum; increase the release of summer chum at Neets Bay by 12 million smolt (61 million overall from 49 million); propose a fall coho project for 1.2 million smolt to be reared in Connell Lake (ultimately was not permitted and production was moved to Neck Lake); and, actively promoted the chum troll fishery in Neets Bay involving gaining a commitment from fishermen and subsequently for tendering from Ketchikan processors.
- 2011 redefine a Neets Bay Harvest Fund (reserve) that would insure a chum troll fishery even if this caused SSRAA to fall short of cost recovery. The cost recovery shortfall, if caused by overharvest (primarily intended for chum troll), would be paid from the fund. Since this time (and before) SSRAA has designated a chum troll target as part of its annual budget process. The forecasted return to Neets Bay is often exceeded by the total of fish designated for chum troll, broodstock and cost recovery. Broodstock is the single priority, but chum trolling will not be curtailed until their annual target is hit. This is a management target…the point at which the chum fishery may be curtailed by SSRAA, but it will not be curtailed at any point short of that target.

Douglas Island Pink and Chum Capital and Operational Changes

Capital Expenditures

- Expanded Macaulay Salmon Hatchery in 2012-2013 to maintain king production & restore coho production to previous levels ($3 million).

Program Changes

- Transferred ADF&G Chinook program from Snettisham Hatchery to Macaulay Salmon Hatchery in 1994. Increased production from 250,000 to 600,000 smolts; total operational costs $350,000. Abandoned plans to increase coho production and reduced existing production by 200,000 in order to accommodate extra Chinook.
- Initiated Skagway Chinook program in 1998. Increased Chinook production from 600,000 smolts to 900,000 smolts; total operational costs $500,000. Reduced coho production by an additional 300,000 to accommodate extra Chinook.
- Increased coho production from 500,000 smolts to 1,000,000 smolts; operational costs $400,000.

Management Changes

- Allocated $6 million to NSRAA over last three years to reduce cost recovery and increase common property access in THAs as well as assist in development of new enhancement.
    - 2013: $1.5 million for Deep Inlet cost recovery.
    - 2014: $2.5 million for the following:
        - $1.5 million for Deep Inlet cost recovery.
        - $500,000 for portion of Hidden Falls cost recovery.
        - $450,000 for capital costs for infrastructure development at Southeast Cove.
        - $50,000 for 2013 Deep Inlet cost recovery shortfall.
    - 2015: $2 million for all Deep Inlet and a portion of Hidden Falls cost recovery.
- Allocated $2.5 million to SSRAA over last two years reduce cost recovery and increase common property access in THAs as well as provide financial support for Klawock Hatchery.
    - 2014: $2 million for the following:
        - $1.5 million for Neets Bay cost recovery fund.
        - $500,000 for Klawock Hatchery operations.
    - 2015: $1 million for the following:
        - $500,000 for Neets Bay cost recovery fund.
        - $500,000 for Klawock Hatchery operations.
- Supported development of directed troll chum fishery at Homeshore, Icy Strait and Hawk Inlet.
- Provided otolith reading of Homeshore troll-caught chums at the request of the Chum Trollers Association in order to provide ADF&G with necessary information to manage fishery and improve access to hatchery chums.

Armstrong-Keta Capital and Operational Changes

Capital Expenditures to Increase Troll Fish:

- Expansion of the Port Armstrong chinook and coho programs in 1993-1997: $1.18m US/Canada mitigation capital funds plus $453,000 in associated operations funds.
- Initiation of the Port Armstrong chum program (ultimately directed at a Port Lucy troll terminal harvest) with construction of new incubation building in 2003-2005: $1.46m Southeast Sustainable Salmon Fund grant.

- Expansion of the Port Armstrong coho program in 2003-2005: $670,00 Sustainable Salmon Fund grant.
- Coho and chinook handling equipment in 2007-2008: $28,000 Fisheries Economic Development grant, plus $9,000 in AKI matching funds.
- Additional net pens for Port Armstrong coho program in 2007: $133,000 Fisheries Economic Development grant, plus $44,000 in AKI matching funds.
- Facilities upgrade for the Port Armstrong coho and chinook programs in 2011-2013: $631,000 Chinook Mitigation Fund grant.
- Expansion and improvement of Little Port Walter facilities in order to move the Port Armstrong chinook program to LPW, creating space for additional coho production at Port Armstrong in 2014-2015: $201,000 Chinook Salmon Hatchery Enhancement Fund grant.
- Additional troll facility capital improvements for coho and chinook incubation building, saltwater pump system, rearing water system additions, raceways, net pens and feed storage, 2000-2015: $1.45m in AKI funds.

Program Changes to Increase Troll Fish since 2000:

- Shift production at Port Armstrong by decreasing chinooks to approximately 200,000 annually and increasing cohos proportionally, using the rearing facilities to triple the benefit to trollers for the same cost.
- Initiation of a chinook zero check program in 2005, eventually releasing 20g smolts of Unuk River stock in early May by utilizing surplus heated water from the Port Armstrong hydropower load banks to accelerate incubation.
- Support both financially and in-kind for the Keta River chinook stock remote egg takes and rearing in 2014 and 2015 at Little Port Walter.
- Provide showers and laundry facilities and serve countless dinners to trollers at the Port Armstrong Hatchery manager's residence since 2007.

Management Changes to Increase Troll Fish since 2000:

- Removal of the infamous Port Armstrong gut harvest barrier net from 2009 on.
- Open Port Armstrong SHA except for a small broodstock reserve area annually since 2011 for trolling during the chinook cost recovery season.
- Permit retention of chinooks 26" or larger in the Port Armstrong SHA annually since 2011.
- Extend the coho troll season in the Port Armstrong SHA past the ADF&G September fall closure in 2014 with plans to continue to do so in the future.
- Obtain a permit increase of 30 million chums in 2015 for release at Port Lucy and establishment of a troll terminal harvest.

Joint Regional Planning Team Recommendations, a Selected History

The following is a small selection of annual recommendations to the commissioner from the JRPT. These excerpts demonstrate the extent and seriousness that the RPT members brought to the discussion regarding allocation. The complete text of JRPT letters to the commissioner are presented in Appendix XXX

May 1997, started discussing roe and value calculations and two motions were made:
Wyman moved and Mecum seconded the Joint RPT direct the regional associations to work collectively to resolve what should constitute the value of the enhanced salmon used for the Southeast allocation plan and Fisher moved and Bigsby seconded the motion to request the original Allocative Task Force look at the different levels of participation in the fishery (total permit in a gear/active participation) and factor those in when deciding the allocative percentages per gear group.

April 1999 letter to the commissioner – JRPT
Allocation of enhanced fish: Most of the day-long meeting was dedicated to a discussion of the status of allocation. This was the first consideration for submitting BOF proposal(s) that addressed the troll imbalance.

Meeting December 7, 2004
Allocation of Enhanced Fish Task Force meeting chaired by Ken Duckett. Value calculation delivered by CFEC Kurt Iverson. All day meeting.

December 2008 – Workshop to discuss the allocation situation including considerations of reasons for the current imbalance, modeling what would happen if Hidden Falls Hatchery returned to standard survival rates, and modeling what would occur if one or more special harvest area management plans were changed.

December 2009 – *Industry members of the RPT would like to state that this is the first time since 1994 where both net fleets are significantly out of their ranges in opposite directions. It is the first time the joint RPT has needed to consider recommending changes in SHA rotations. The JRPT recognizes that there may be a better and timelier alternative than the Board of Fish process for continually readjusting the management of rotational fisheries. The joint RPT will consider alternatives and may have a recommendation by the 2012 board meeting that will allow significant adjustments in SHA's without requiring board of fisheries action. These adjustments would be conducted within the current Southeast Enhanced Allocation Plan and would not make any changes to the allocation ranges. If the RPT cannot come up with a plan the RPT will submit Board of Fish proposals as appropriate for the gear groups based on the current situation within the allocation plan. (Industry Consensus 12/9/08) (AGENDA LEADIN 12/10/09)*

December 2011 – Industry consensus to support proposal 325, chum access in districts 9, 12, & 14.

April 2014 Letter to the Commissioner excised selection

Efforts continue to be made to improve chum salmon harvest opportunities for the troll fleet and the troll fleet is increasing its success at harvesting chum salmon.

SSRAA has established a Neets Bay Harvest Fund, which is intended to provide regular and increased chum salmon harvesting opportunities for trollers. DIPAC has contributed to this fund. The fund will also increase opportunities for net fishermen, but will likely help seiners more than gillnetters.

Hatchery operators continue to increase production of Chinook and coho salmon, which are the targeted troll species.

Cost of Production: Coho/Chinook Smolt vs Chum Fry

The capital and operational costs of Chinook and coho production are significantly higher due to the requirements of freshwater rearing environment; an environment that is not necessary for chum salmon. Capital costs for Chinook/coho is approximately 80% of hatchery construction costs, while annual operational costs of production are close to 50%. Looking at costs by individual fry/smolt release the differential is tremendous, about one cent per chum fry compared to $0.30 per Chinook and $0.15 per coho.

Program Costs	Annual Budget	Proportion for coho/chinook
NSRAA	**$7,000,000**	**46%**
SSRAA	**$9,000,000**	**50%**
DIPAC	**$5,000,000**	**45%**
Armstrong Keta	**$4,000,000**	**50%**
Total	**$25,000,000**	**$12,000,000 (48%)**

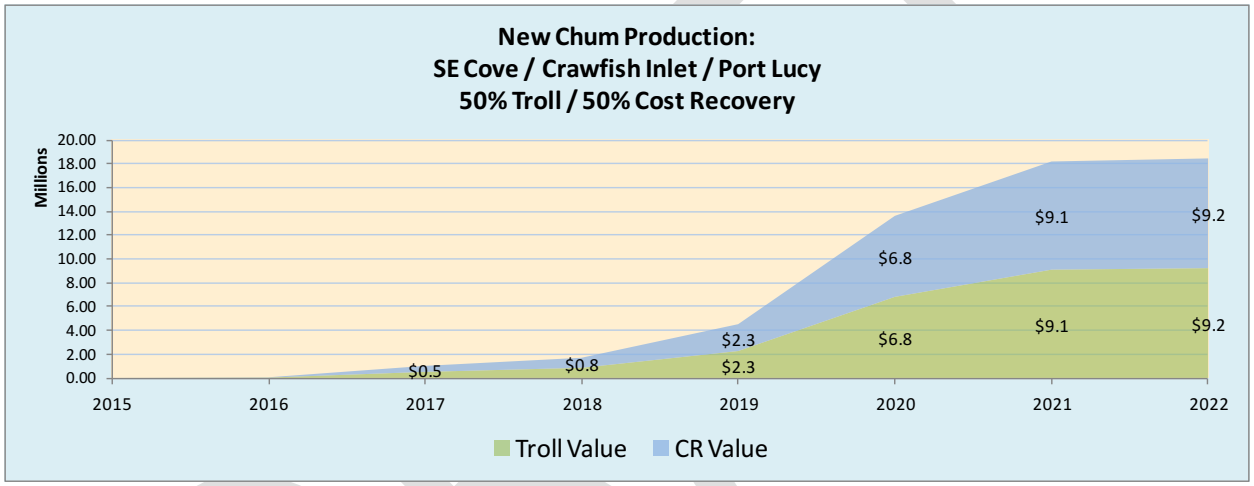
When looking at the costs of production versus the value of returns to commercial fisheries the differential or benefit to cost is also stark: Chinook 1:1, coho 4:1, and chum salmon 8:1.

Future Salmon Production

New chum salmon programs are in the works that are expected to benefit the troll fleet significantly. These programs were specifically designed to avoid net harvest and provide troll opportunities – Southeast Cove (2013), Crawfish Inlet (2015), Port Lucy (2016), and Port Assumption (2017). Coho and Chinook programs are mature and not expected to expand with the exception of Sawmill Creek

Hatchery where smolt production will increase from its current 500,000 smolt to two million smolt by 2017.

In a general sense these programs can be considered an experiment that will test whether additional production with an emphasis toward terminal area troll harvest can move the trollers into their allocation range. The total fry production of these chum programs is about 140 million or 3.5 million adults valued at $16.8 million. This value if harvested primarily by trollers could easily move the trollers into their allocation range; this assumes the cleanup is conducted for cost recovery revenue, not harvested by the net fleets. Alternatively if there are surplus terminal fish that are not needed by aquaculture associations for their operational and capital revenues, operators will be forced to open these terminal areas to the net groups.

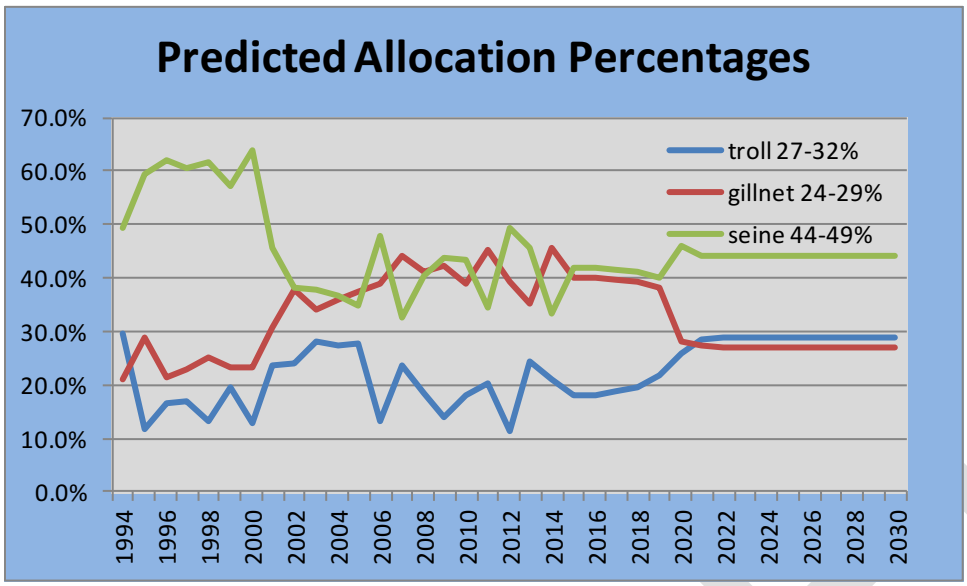


			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
50%	SEC	Fish				-	5,144	108,029	173,190	297,509	717,623	931,109	943,113
	CRAW					-	-	-	7,716	169,760	414,112	509,281	514,425
	AKI					-	-	-	-	15,433	324,088	504,137	514,425
	Troll Fish					**-**	**5,144**	**108,029**	**180,906**	**482,702**	**1,455,823**	**1,944,527**	**1,971,963**
7.8	SEC	Value				$ -	$ 24,075	$ 505,577	$ 810,528	$ 1,392,343	$ 3,358,475	$ 4,357,591	$ 4,413,767
$ 0.60	CRAW					$ -	$ -	$ -	$ 36,113	$ 794,478	$ 1,938,045	$ 2,383,434	$ 2,407,509
	AKI					$ -	$ -	$ -	$ -	$ 72,225	$ 1,516,731	$ 2,359,359	$ 2,407,509
	Troll Value					**$ -**	**$ 24,075**	**$ 505,577**	**$ 846,641**	**$ 2,259,046**	**$ 6,813,250**	**$ 9,100,384**	**$ 9,228,785**

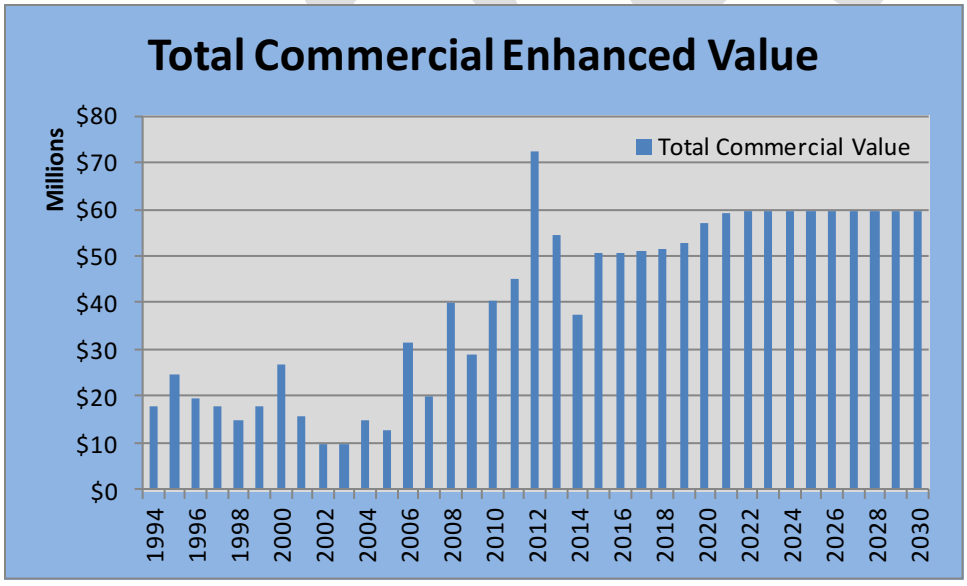
Table and Graph xxx. Three new chum projects – Crawfish Inlet, Southeast Cove, and Port Lucy (AKI) have been permitted and are at various stages of development. The first 3 year olds return to SE Cove in 2015. Value to trollers is based on a fifty percent exploitation rate; full value expected beginning in 2021.

The best case scenario is the troller fleet will increase their gross revenue and attain their allocation range; worst case scenario trollers will increase their gross revenue but not attain their allocation. Both scenarios increase the size of the pie significantly to float all boats higher.

Enhanced Allocation Tables and Graph Projections for 2020 & 2025



Graph xxx. Troll, gillnet, and seine allocation percentages, actual for 1994 – 2013 and predicted for 2014 – 2030 based on new chum production at Crawfish Inlet, SE Cove, and Port Lucy. Predicted values use the recent five year averages and assume status quo for all other programs and harvest. Trollers are predicted to be in their allocation range beginning in 2021.



Graph xxx. Total commercial value of southeast Alaska enhanced salmon 1994 – 2013 actual and 2014 – 2030 predicted with the additional production of new projects Crawfish Inlet, Southeast Cove, and Port Lucy. Value is expected to average close to $60 million annually beginning in 2021.

Wild Coho Allocation Accounting and Discounting

Table showing Board of Fish designated allocation percentages of coho among gear groups and actual results in percent and catch averages. Note the past ten year average shows trollers 7% above their prescribed allocation.

	Seine	Gill net	Set net	Troll	Total
Allocation	19%	13%	7%	61%	100%
1962-2013	333,425	262,305	141,388	1,238,144	1,975,262
2004-2013	294,993	312,316	127,399	1,581,723	2,316,431
1962-2013	17%	13%	7%	63%	100%
2004-2013	13%	13%	5%	68%	100%

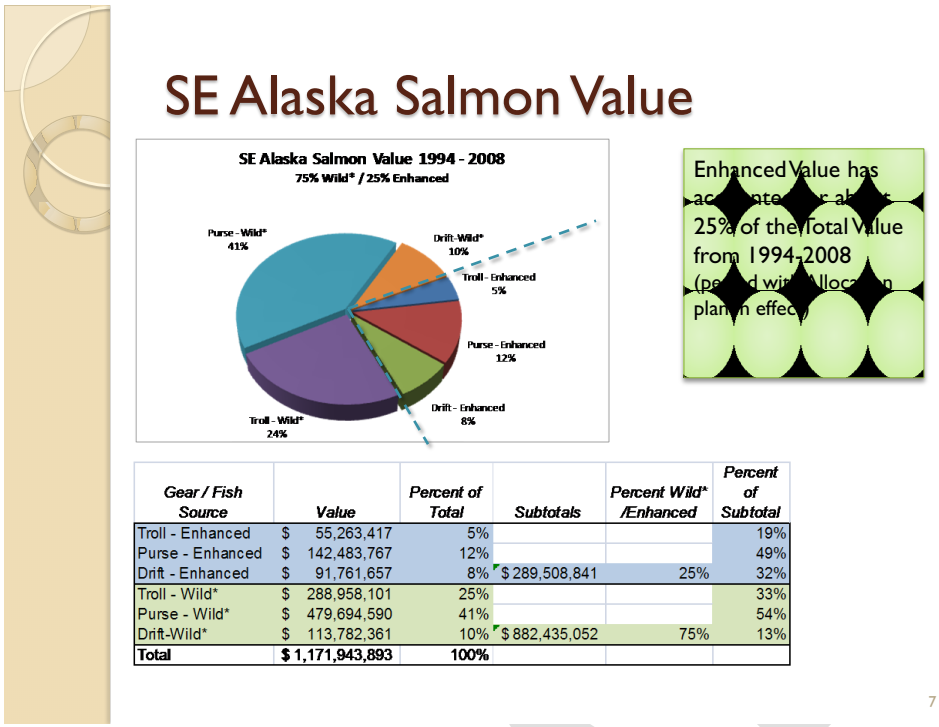
The last ten year cumulative overage of wild coho allocation is 1.62 million fish or 11.3 million pounds for a value imbalance of $19.9 million using a seven pound average and $1.75/lb.

Alternative Models for Allocation (THIS SECTION TO BE UPDATED THROUGH 2016)

A Rising Tide Perspective

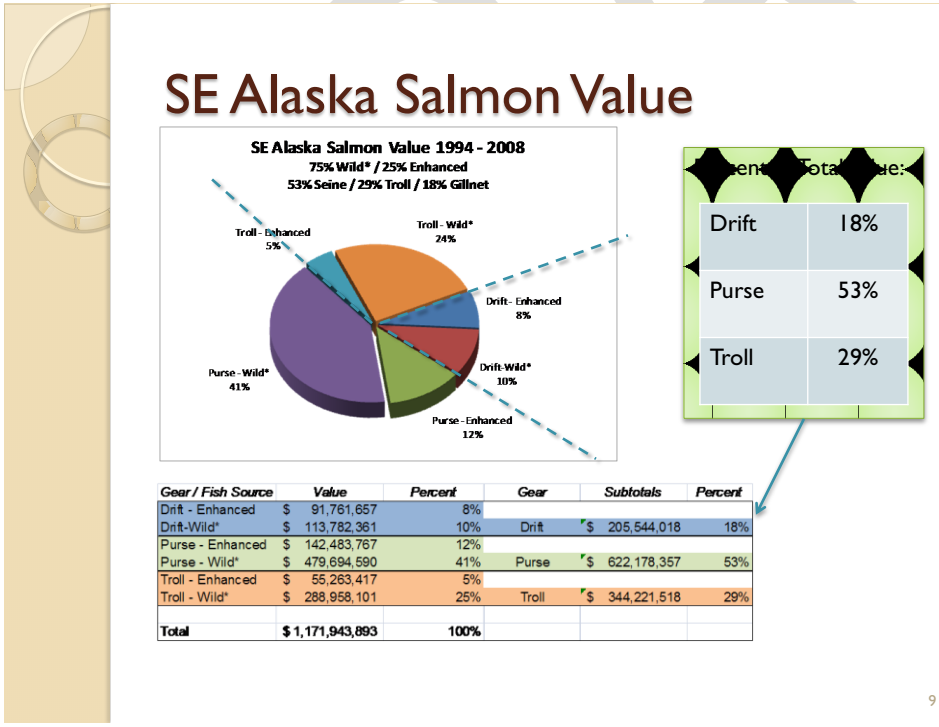
The Allocation Plan is based solely on the value of enhanced salmon, while salmon fisheries of southeast Alaska operate in a more encompassing context. Overall, enhancement represents 25% of the total salmon value in commercial fisheries, wild capture fisheries the other 75%. These proportions do not represent the magnitude of importance for individual gear types. The troll fleet gets 84% of its harvest value from wild salmon whereas the gillnet fleet derives only 55% of their value from wild harvest. The seine fleet derives 77% of their value from wild stock fisheries and 23% from enhanced salmon, close to the overall value that enhanced salmon represents when all salmon and fisheries are combined – 75% wild and 25% enhanced.

The gillnet fleet is more dependent on the enhancement program for its livelihood than either the seine or troll fleets. An alternative method for viewing allocation is combining wild and enhanced salmon in its entirety. As noted enhanced salmon represents 25% of the overall value but is distributed among the three groups disproportionately. When viewed this way, coincidentally perhaps, the percentages come close to falling within the Allocation Plan ranges, gillnet 18% (range 24-29%), seine 53% (44-49%), and troll 29% (27-32%). The following graphic illustration provides a look at the value numbers for wild and enhanced in southeast Alaska.



Gear / Fish Source	Value	Percent of Total	Subtotals	Percent Wild* /Enhanced	Percent of Subtotal
Troll - Enhanced	$ 55,263,417	5%			19%
Purse - Enhanced	$ 142,483,767	12%			49%
Drift - Enhanced	$ 91,761,657	8%	$ 289,508,841	25%	32%
Troll - Wild*	$ 288,958,101	25%			33%
Purse - Wild*	$ 479,694,590	41%			54%
Drift-Wild*	$ 113,782,361	10%	$ 882,435,052	75%	13%
Total	**$ 1,171,943,893**	**100%**			

Fig. 1 Enhanced salmon represents about 25% of the total commercial salmon catch which has been documented in this report. However, the wild component of the harvest is distributed differently than the enhanced portion. The gillnet fleet gets a small sliver of their value from wild fish (13% of total wild), whereas the troll fleet gets 33% of wild salmon pie; seine 54%. The seine fleet harvests a similar proportion of wild and enhanced.



Gear / Fish Source	Value	Percent	Gear	Subtotals	Percent
Drift - Enhanced	$ 91,761,657	8%			
Drift-Wild*	$ 113,782,361	10%	Drift	$ 205,544,018	18%
Purse - Enhanced	$ 142,483,767	12%			
Purse - Wild*	$ 479,694,590	41%	Purse	$ 622,178,357	53%
Troll - Enhanced	$ 55,263,417	5%			
Troll - Wild*	$ 288,958,101	25%	Troll	$ 344,221,518	29%
Total	**$ 1,171,943,893**	**100%**			

Figure 2. Perhaps coincidentally, the distribution of enhanced plus wild catch falls close to the enhanced allocation percentages for the three gear groups.

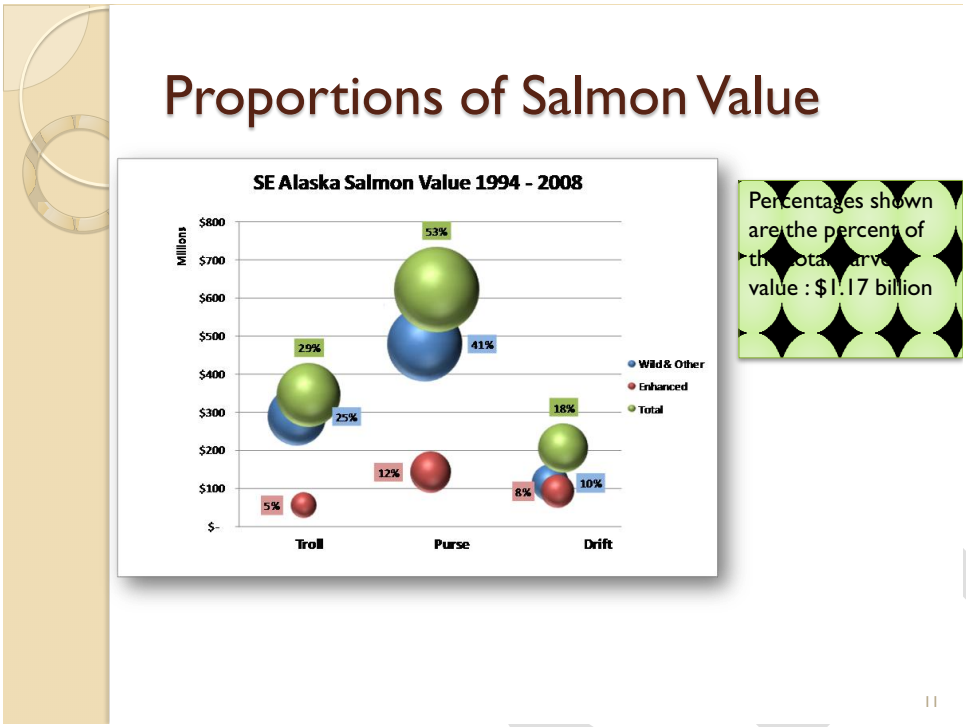


Figure 3. It is evident that enhanced salmon is most critical to the gillnet fleet in the sense that it makes up nearly half of their total value. Conversely, seine total value is less sensitive to enhanced salmon, primarily due to importance of wild pink salmon to their gross revenue.

Using the SATF allocation ranges and combining enhanced and wild value the graphic results follow.

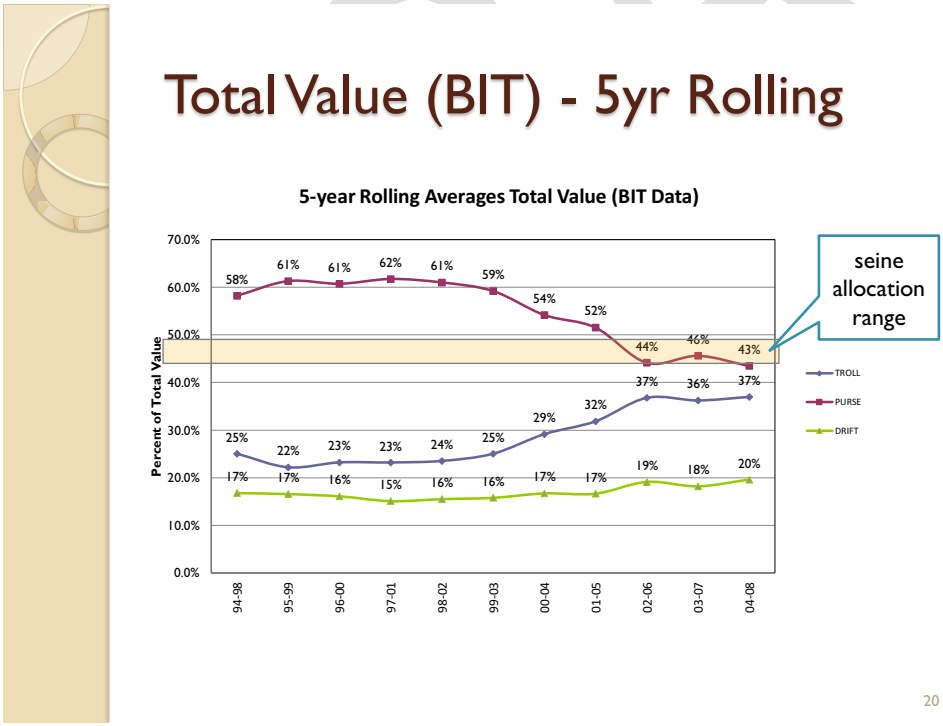


Figure 4. Total seine value puts the seiners in the lower range of their allocation for the 2003 to 2009 five year rolling average periods.

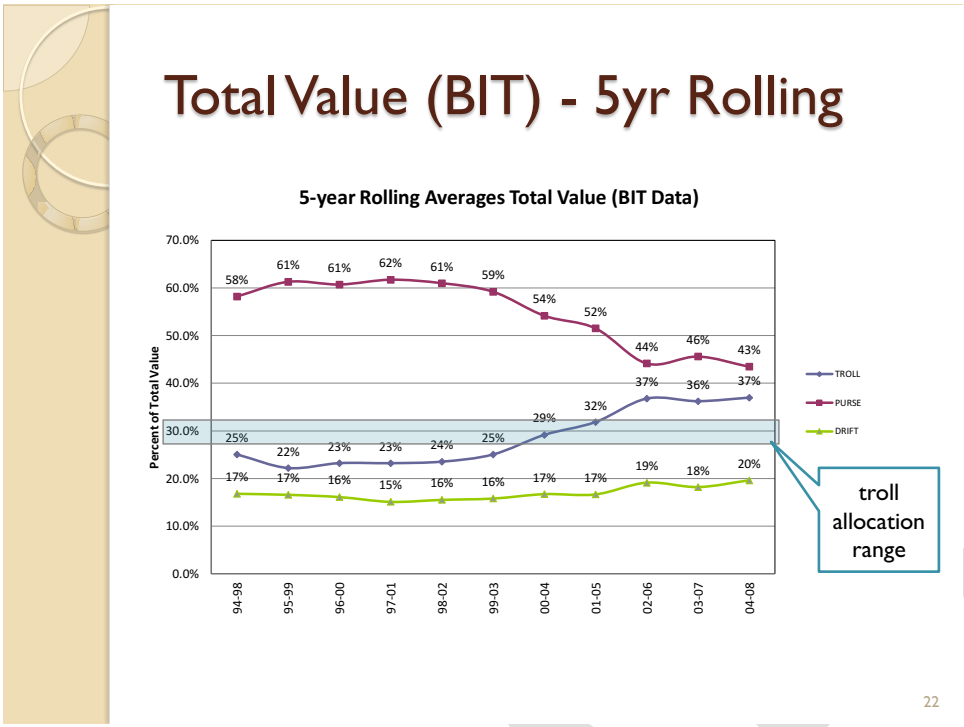


Figure 5. Total troll values show the trollers above their range for the 2002 to 2009 period; the rolling average is 36% to 37%. The increasing trend from 1994 is being driven by lower chum survivals at Hidden Falls and Deep Inlet but also by high troll prices for coho and Chinook in recent years.

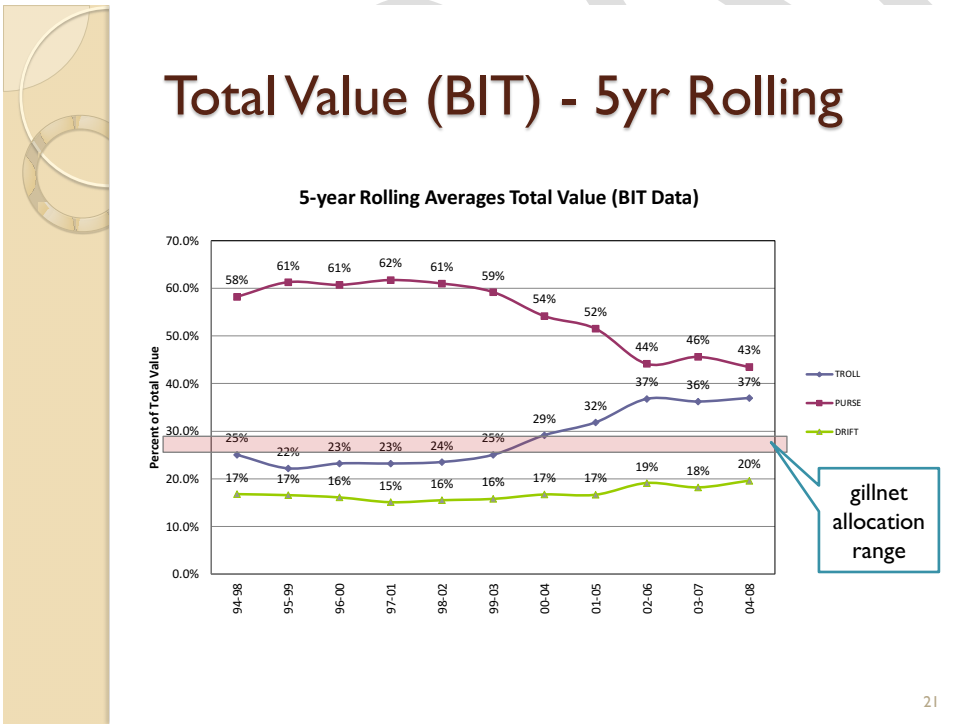


Figure 6. Total gillnet value by percentage creates a contrary allocation reality for the gillnet fleet. They show a relatively low proportion of value and which is well below the enhanced allocation range. The period from 2002 to 2009 shows the rolling average is 18% to 20%.

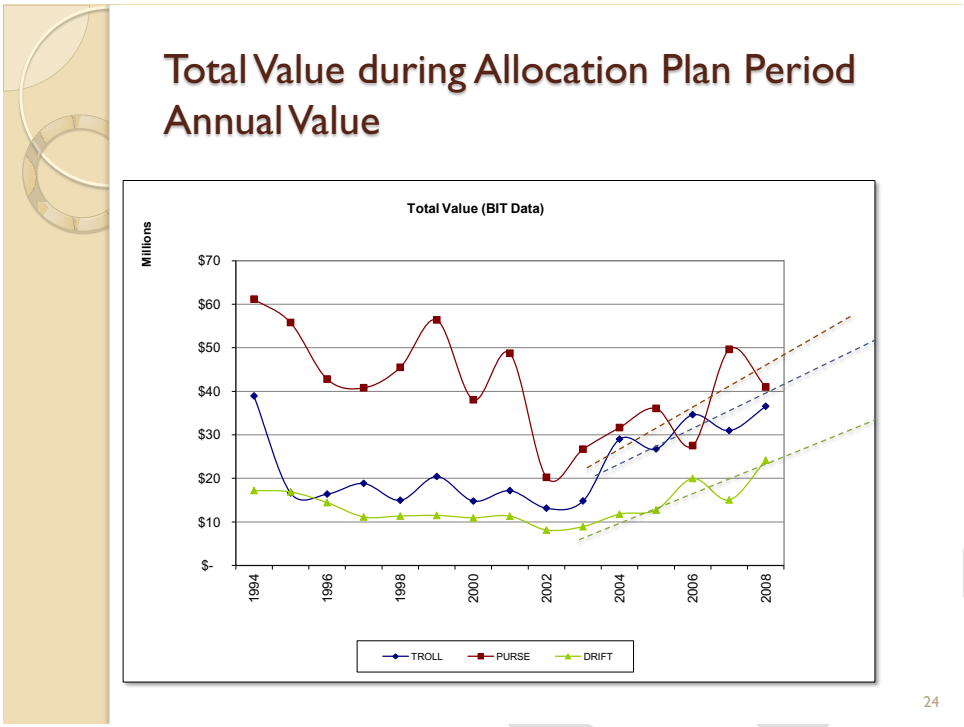


Figure 7. Total salmon value has trended up for all three gear groups since the low period of 2001 and 2002.

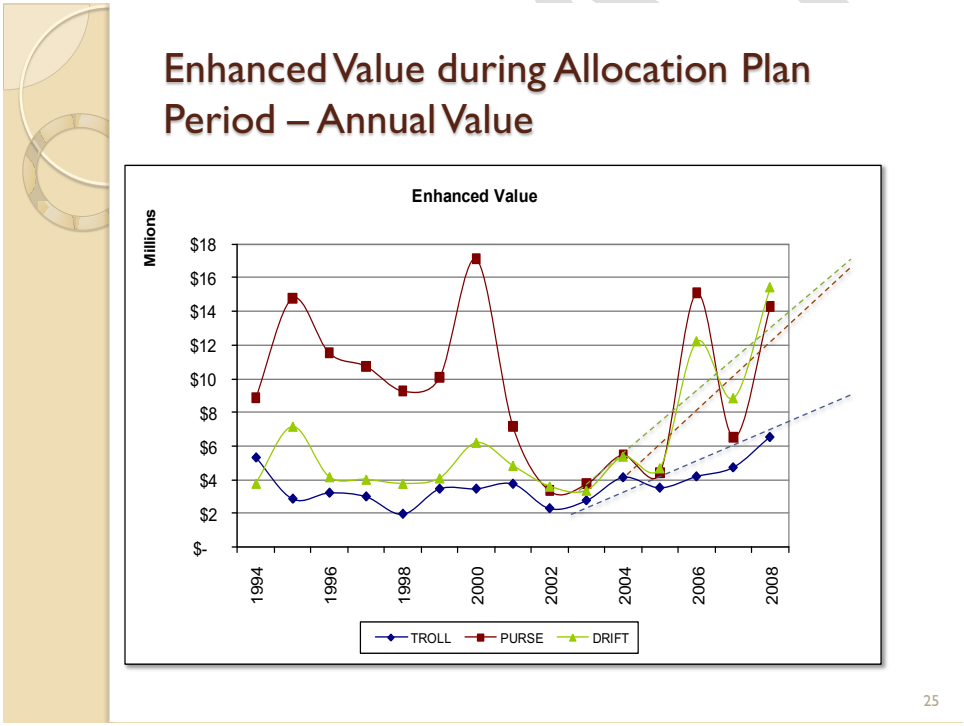


Figure 8. Enhanced value has demonstrated an even steeper increase in value than total wild and enhanced value. Filtering just for the net groups the increase in enhanced value shows a dramatic increase driven by the success of DIPAC's chum program.

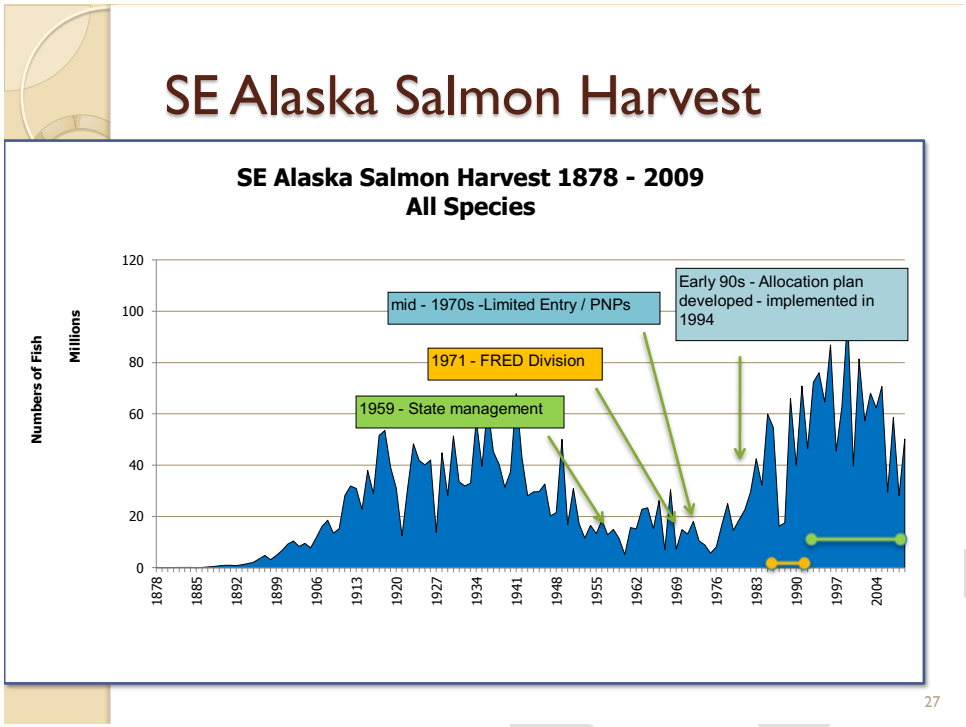


Figure 9. The historical harvest of salmon in Alaska has several important milestones including statehood in 1959, ADF&G FRED division, limited entry, and private non-profit aquaculture production.

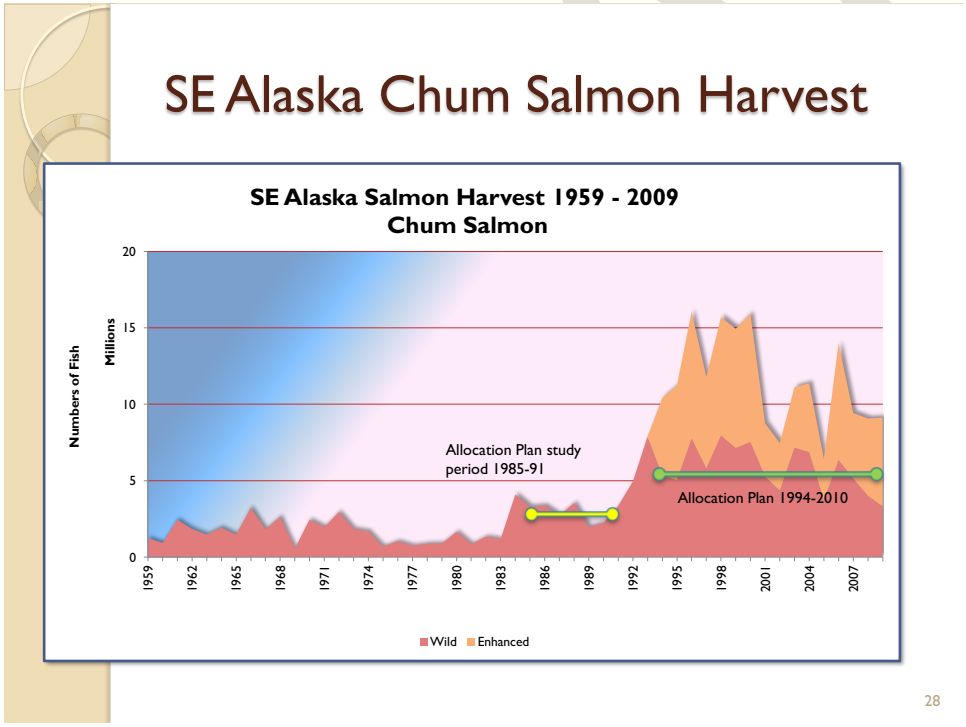


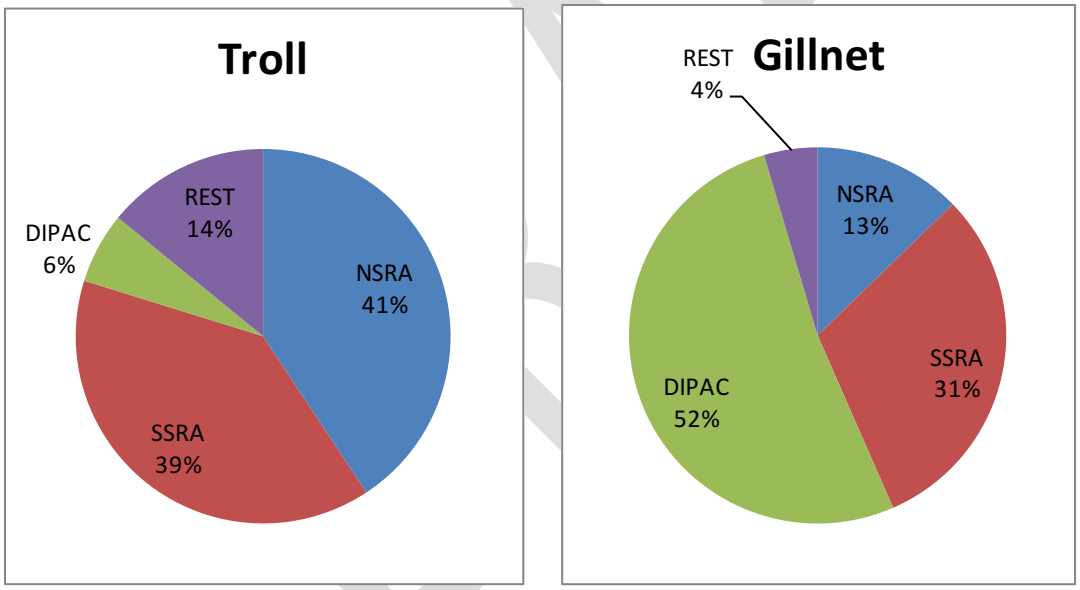
Figure 10. The allocation plan was adopted in 1994 and based on enhanced salmon catches from the 1985 to 1991 period, a seven year block of time when very little enhanced chum salmon was produced. The twenty year period 1994 – 2015 was defined by significant chum salmon harvest numbers and value, representing some 80% of all enhanced salmon.

Exclusion of Non-Regionals from Allocation Plan Perspective

There has been discussion and proposals at the board of fish to remove non-regionals from the Allocation Plan or remove just DIPAC. If the allocation ranges are not changed there are many ways producers can be included/excluded from the Allocation Plan but agreement to remove or slice and dice hatchery operators will always result in winners and losers. In order to visualize the results of removing DIPAC, for example, the past twenty years of production value has been calculated for each organization and then summarized by gear, averaged, and presented in tables and graphs.

ALL Years 1994-2013*				
	troll	gillnet	seine	Grand Total
NSRA	$ 39,611,496	$ 24,005,116	$ 137,976,704	$ 201,593,316
SSRA	$ 38,014,623	$ 57,963,518	$ 76,278,563	$ 172,256,703
DIPAC	$ 5,948,904	$ 98,062,716	$ 13,038,313	$ 117,049,933
REST	$ 13,711,132	$ 8,664,156	$ 21,861,920	$ 44,237,208
	$ 97,286,155	*$ 188,695,506*	*$ 249,155,500*	*$ 535,137,160*

Table 1. DIPAC contributes most significantly to the gillnet fleet. Of the $117 million value in the past twenty years nearly $100 million is to the gillnet fleet.



Graph 1. From 1994 to 2013, the last year of official value data, DIPAC contributed 52% of the gillnet value for all of southeast Alaska. The troll fleet received its greatest value from NSRAA (41%) and SSRAA (39%), or 80% from the regional's. The troll fleet receives significant benefits from Klowack and Port Armstrong coho programs.

There is little surprise that with DIPAC out of the Allocation Plan that the gillnet proportion will plummet precipitously. Table 3 shows the five year rolling average and results. The proportion for troll comes up primarily because the pie is $117 million smaller, $98 million of that from the gillnet column. The allocation pie slices are closer to the consensus ranges.

NSRAA & SSRAA ONLY				
Group	(All)			
Sale Type	(All)			
Area (N-S)	(All)			
Project	(All)			
Agency	(Multiple Ite)			
Species	(All)			
Sum of Value	Gear			
Year	troll	gillnet	seine	Grand Total
1994	$ 4,214,924	$ 2,273,963	$ 7,455,209	$ 13,944,096
1995	$ 2,455,982	$ 3,439,660	$ 13,360,623	$ 19,256,265
1996	$ 2,737,604	$ 1,468,159	$ 9,678,070	$ 13,883,833
1997	$ 2,354,905	$ 2,343,057	$ 10,217,260	$ 14,915,222
1998	$ 1,698,679	$ 2,388,167	$ 8,727,320	$ 12,814,167
1999	$ 2,985,497	$ 2,134,440	$ 8,857,012	$ 13,976,949
2000	$ 2,916,946	$ 2,577,953	$ 16,370,518	$ 21,865,417
2001	$ 3,162,960	$ 2,395,153	$ 6,372,574	$ 11,930,687
2002	$ 1,866,676	$ 1,435,891	$ 3,187,451	$ 6,490,018
2003	$ 2,348,288	$ 2,078,916	$ 3,175,983	$ 7,603,187
2004	$ 3,675,370	$ 2,320,403	$ 4,069,303	$ 10,065,076
2005	$ 2,988,186	$ 3,127,354	$ 3,612,226	$ 9,727,766
2006	$ 3,628,856	$ 5,863,507	$ 13,891,791	$ 23,384,154
2007	$ 3,533,327	$ 3,863,965	$ 5,605,401	$ 13,002,693
2008	$ 6,135,756	$ 5,494,954	$ 15,677,252	$ 27,307,962
2009	$ 3,501,470	$ 4,336,893	$ 11,624,976	$ 19,463,339
2010	$ 5,945,269	$ 7,429,768	$ 15,532,603	$ 28,907,641
2011	$ 6,529,276	$ 7,627,044	$ 11,569,800	$ 25,726,120
2012	$ 6,964,819	$ 11,880,235	$ 30,894,596	$ 49,739,650
2013	$ 7,981,329	$ 7,489,152	$ 14,375,297	$ 29,845,778
Grand Total	$ 77,626,119	$ 81,968,634	$ 214,255,267	$ 373,850,020
Total Enhanced	*$ 97,286,155*	*$ 188,695,506*	*$ 249,155,500*	*$ 535,137,160*
Percent	*80%*	*43%*	*86%*	*70%*

Table 2. NSRAA and SSRAA only with DIPAC and other producers out of the allocation for years 1994 to 2013. The percentages represent NSRAA and SSRAA portion of total value by gear. NSRAA and SSRAA programs provide only 43% of the gillnet value, but 80% of the troll value.

	Troll	Gillnet	Seine	
94-98	18%	16%	66%	100%
95-99	16%	16%	68%	100%
96-00	16%	14%	70%	100%
97-01	17%	16%	67%	100%
98-02	19%	16%	65%	100%
99-03	21%	17%	61%	100%
00-04	24%	19%	57%	100%
01-05	31%	25%	45%	100%
02-06	25%	26%	49%	100%
03-07	25%	27%	48%	100%
04-08	24%	25%	51%	100%
05-09	21%	24%	54%	100%
06-10	20%	24%	56%	100%
07-11	22%	25%	52%	100%
08-12	19%	24%	56%	100%
09-13*	20%	25%	55%	100%
ALL YEARS	21%	22%	57%	100%
Target	27-32%	24-29%	44-49%	

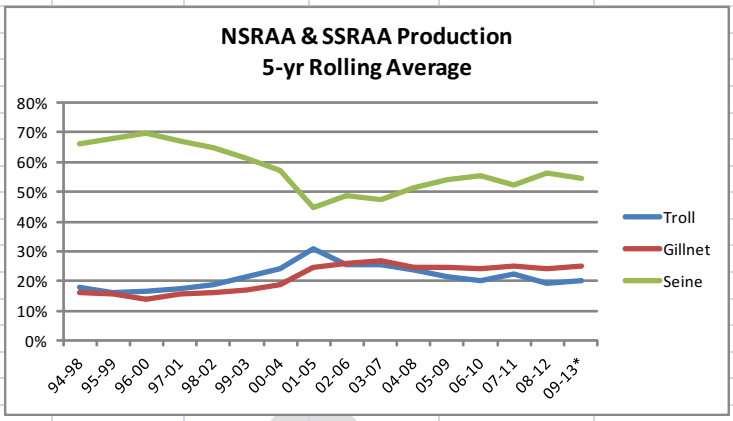


Table 3. SSRAA and NSRAA production only with all other producers removed for years 1994 – 2013. The greatest effect aside from shrinking the pie is to lower the gillnet proportion from 35% with all producer value to 22% for NSRAA and SSRAA only. The seine fleet shows a larger piece of the pie in this scenario with 57%.

There are a variety of permutations that could be considered to evaluate which combination of producers delivers the appropriate gear percentages vis-à-vis the allocation ranges. There does not seem to be merit in this exercise given that the regulations for allocation include all producers in southeast Alaska except Metlakatla's Tamgass Hatchery. The solution based on current regulation **5AAC 33.364** will need to be found by increasing production and getting that production into the holds of the troll fleet. (See section on Future Production pg. 28)

Discussion

Allocation has been a vexing issue since the inception of salmon enhancement program. The initial concept of a northern southeast association in the mid 1970s was limited to Baranof-Chichagof Islands while simultaneously Juneau gillnetters were considering only the Juneau area. Nevertheless, when incorporation became official, gillnet, troll, and seine had equal representation in NSRAA. The conceptual plan in 1979 was to develop Coho Lake stocking on Baranof, Chichagof, and Admiralty Islands using local broodstocks and as many as fifty lakes. A program to benefit the troll fleet was at the core of NSRAA origins.

Simultaneously Medvejie and Salmon Lake (Juneau) hatcheries were being designed and developed for central incubation facilities for coho and chum salmon. In these early years there were few fish to divvy up, the struggle was funding, establishing a legal enhancement tax, site selection, brood sources, and cash flow. The 1980s were a development decade and learning period. By the end of the 1980s Coho

and chum demonstrated that production was possible and return on investment could be favorable. Chinook and sockeye were thought to have great promise during this decade although there was much to be worked out with regard to standard operating procedures for eggtakes, disease management, rearing strategies, and costs. The Allocation Plan participants (1991 – 1994) believed that 100,000 adult chinook and a million adult sockeye could be produced and caught in commercial troll and gillnet fisheries, respectively.

What we now know is that adult sockeye production is elusive. Chilkat Lake, Redoubt, Beaver Lake and other programs all failed to measure up to expectations and were shut down. Only Snettisham Hatchery has been successful, although moderately so. If it were not for Snettisham's political and financial connection to the PST's Transboundary River programs on the Taku and Tatsameni Rivers the domestic sockeye program might not have the requisite benefit to continue operation. The SATF predicted that these sockeye programs were to benefit the net groups. In some ways this left a huge gap in expected value.

Chinook smolt production on the other hand was more much successful with large programs at Macaulay, Medvejie, Hidden Falls, Port Armstrong, Crystal Lake, Whitman Lake, and Metlakatla. Some seven million Chinook smolt are released each year from these facilities. A marine survival of 2% would produce 140,000 adults. The last ten year average harvest is 53,000 adults Chinook (cost recovery harvest not included) with the ten year average troll harvest of 22,700 adults with an average value of just under a million dollars. A troll caught Chinook is much more valuable than a net caught king. Even though the 22,700 troll caught chinook represent 42.8% of the number of fish, it represents 68% of the value. This demonstrates how important and consequential a higher harvest rate would be to the allocation balance.

The Chinook smolt production numbers surpass the two decade old goals but the harvest is far below the 100,000 chinook in the fish holds of trollers envisioned in 1994. The cost of this production is significant compared to the other salmon species; the cost to benefit is close to 1:1 when considering only commercial benefit but near 2:1 when cost recovery value is included.

Chinook programs may be underperforming to the original expectations but continue to have enthusiastic support from fishermen. Producers continue to experiment with a variety of rearing strategies and Chinook stocks (Andrews, Chickamin, Unuk, and Blossom) to increase survival and troll exploitation. There is great frustration that the traditionally most important and valuable species thwarts producers and trollers alike. Hatchery raised Chinook is the only species that underperforms their wild cohort. Wild Chinook smolt on the Taku and Stikine Rivers are considerably smaller (4 – 6grams) than hatchery smolt (20 – 70 grams) yet the wild fish have a higher marine survival rate. Work continues in hopes of a breakthrough.

As the Alaska Chinook program developed, 'experimental' and 'spring access' Chinook fisheries were implemented to provide additional troll opportunity and harvest in major corridors leading up to the Chinook facilities. These spring fisheries in May and June have successfully increased Alaska Chinook contributions that otherwise would not occur. By the late 2000s, the spring Chinook fisheries evolved to a standard operating procedure, although it took much work on the part of the Chinook producers, fishermen, and ADF&G to get to this point.

Coho salmon have provided the greatest benefit to the troll fleet in terms of value, $2.4 million average from 1994 – 2014; the record year in 2013 was $6.5 million in value. On average trollers capture 69% of the commercially caught enhanced coho. Coho is one species that could be developed further; although ADF&G has concerns about the already large percentage of hatchery coho in the troll catch (~25%).

Chum salmon is confounding as a problem solver for the allocation of enhanced salmon. Chum value is second to coho in value to the troll fleet. The past twenty year average commercial chum value is $15.9 million with 6% of that going to the troll fleet, or just under a million dollars. The biggest year for chum troll value was $4.9 million in 2013, but still just 11.6% of all gear chum value. So the chum conundrum is that when chum are schooling properly the troll fleet can have a good catch rate but the net groups due to efficiencies of scale do proportionately better. There is a larger pie but little or no incremental change in proportions.

Troll chum catch rates and efficiency are part of the puzzle when attempting to solve the allocation imbalance. Currently there are three primary chum troll areas – Homeshore, Eastern Channel, and Neets Bay. Analysis of these three troll fisheries during the peak weeks show a daily catch/boat of 140-150 chum (data in file: ALLOC NSRAA proforma 4.30.14 (2).xlsx). There are anecdotal reports of 1,000 fish per day but the average based on actual catch data is much lower. Large cumulative catches do occur when there are 250 boats fishing which has resulted in 35,000 fish in a single day and 400,000 or even 500,000 chum in a season. To solve the allocation with chum salmon the catch rate would need to move to 280/day/boat or there would need to be twice as many boats fishing. Active power troll permits in all of Southeast for the recent ten year average is 741. Using the 140/chum/boat average, 741 boats could theoretically harvest 104,000 fish per day. Hand troll permits make up another 300 harvesters each year although their effort and catch rate is comparatively small.

As the new chum programs at Crawfish Inlet, Southeast Cove, and Port Lucy come on line the troll fleet will have more options and be able to spread out geographically. This may help increase catch per unit effort and overall harvest proportion. These projects are partitioned geographically but also temporally. Crawfish and Eastern Channel are Medvejie stock fish with return timing in August. Neets Bay, Port Lucy, Southeast Cove, and Homeshore use summer run chum stocks with similar run timing.

One of the challenges for the troll fleet at Eastern Channel, Homeshore, and to a lesser degree Neets Bay is variability of catch from year to year. Chum salmon migratory behavior is strongly influenced by numerous factors, including water temperature, wind, and barometric pressure. The catch at Homeshore was promising in 2011 with 137,000 chum harvested but fell flat the next year although the DIPAC run was quite large both years. In 2013, the highest harvest recorded for Homeshore was 311,000 chum. The fish traveled in large schools and milled in the Homeshore area for several weeks, two weeks which had a maximum catch rate of 131 chum/permit/day. The following year an equally large DIPAC return swam deep and the troll fleet caught very few fish, in fact the worst catch in the five year history of the Homeshore fishery.

Eastern Channel near Sitka has the longest chum troll history dating to 1988 when 1,000 fish were harvested. Since 1994, total returns have ranged from 370,000 to 3.6 million; the average close to two million. Troll harvest during this period has ranged from 24,000 in 2012 to 455,000 in 2013, the same year the troll fleet caught nearly a million chum region-wide. Given the long history in Eastern Channel it is evident that high troll catches are strongly related to run strength, high barometric pressure, absence of cost recovery harvest, and price. The strongest influence is weather. During the peak of the return in mid August if the barometric pressure is low bringing wind and rain, the chum move straight through Eastern Channel to Deep Inlet. The result is poor troll exploitation. In 1999, the largest chum return on record, 3.6 million fish, and the troll fleet harvested only 67,000. The following year in 2000 an equally large return with a more favorable weather pattern delivered 450,000 chum to trollers.

Price is always a factor for the troll fleet as it is with any salmon permit holder. Maximizing daily or weekly revenues is based on price/pound times biomass harvested. A thousand pounds of chum at sixty cents/pound is more lucrative than 200 pounds of coho at $1.75. This is simplistic as there are many other factors fishermen consider, for example tradition and herd mentality or alternatively loner mentality.

Hatchery operators and more particularly the fishermen boards have a long track record of expanding Chinook and coho programs designed to increase troll harvest and value. Many millions of dollars from three percent revenues, cost recovery, State of Alaska, and Pacific Salmon Treaty mitigation monies have been spent on infrastructure to maximize smolt production. In 2014, 23 million coho smolt and 7 million Chinook smolt were released to the ocean; these programs were developed over the past twenty years for the benefit of the troll fleet. In 1994, coho and Chinook smolt production was 13 million and 7 million, respectively; coho is nearly double that today. The fact that Chinook has not increased during the period speaks to the relatively low performance and high costs of raising Chinook.

Chum production also increased significantly over these same years, with the intent to target the net fisheries. All chum salmon program development was expected to benefit the troll fleet at least

marginally since State of Alaska waters are open to trolling most of the year. The Homeshore troll fishery is an example of serendipity. Considering that the DIPAC program had been in operation since the late 1980s, it wasn't until 2010 that large numbers of DIPAC chum were taken in the Homeshore area. Chum trolling in nearby Icy Strait and Cross Sound in June has a much longer history, although the magnitude of the catch was never as large as at Homeshore.

Chinook and coho have a high demand for space, water, and dollars which can and has posed limits on chum salmon production. Leaving aside the issue of permitting, associations and hatchery producers allocate resources with reference to allocation and cost effectiveness. All hatcheries have limited space and water, so production of smolt species can preclude additional chum production. Chum require relatively little freshwater but if water is finite, new production requires lower one species to increase another. Approximately 20 million chum fry can be incubated and hatched on one cubic foot of water whereas this same amount of water could raise about 200,000 coho or Chinook. These water, space, and financial demands limit smolt production at most facilities today.

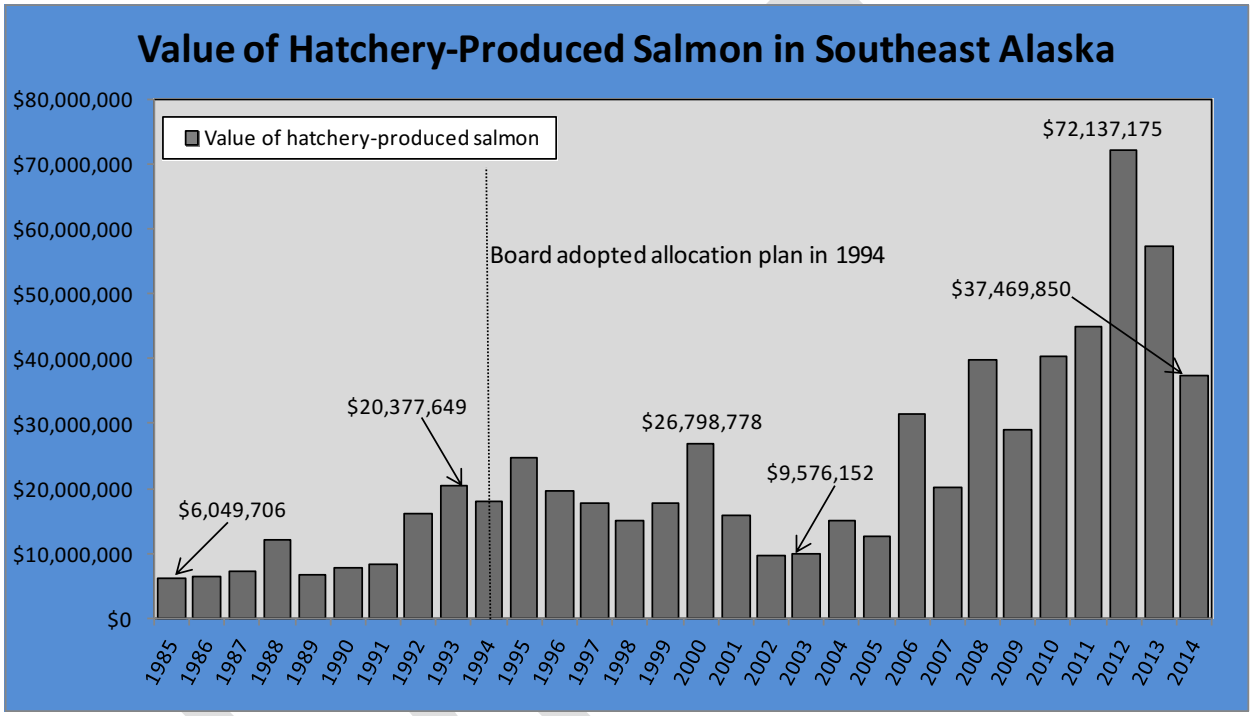
At times the allocation imbalance limits new program options especially if it includes chum production in traditional seine or gillnet areas with a known interception fishery leading up to the terminal area. This type of program would likely worsen the allocation imbalance and therefore doesn't even make it to the permitting stage.

The troll allocation percentage is 18% for the past five year average, 2010-2014 or 9% below their lower range of 27%. The five year rolling average has ranged from 15% to 26% for the past twenty years. Significant money has been expended over the past two decades to move the troll percentage into their range without success. Efforts to increase the overall enhanced troll value has been successful to a large degree but seine and gillnet harvest shares have increased to a greater degree. The seine fleet is also out of its expected range but to a much smaller degree than the trollers. Projects that benefit trollers and only trollers are difficult to construct, especially in inside fisheries and programs such as DIPAC, SSRAA, and NSRAA typically conduct. Factors contributing to this outcome include gear efficiency, low exploitation rates, catch per unit effort, mixed stock net fishery interception of enhanced stocks, and terminal net fisheries.

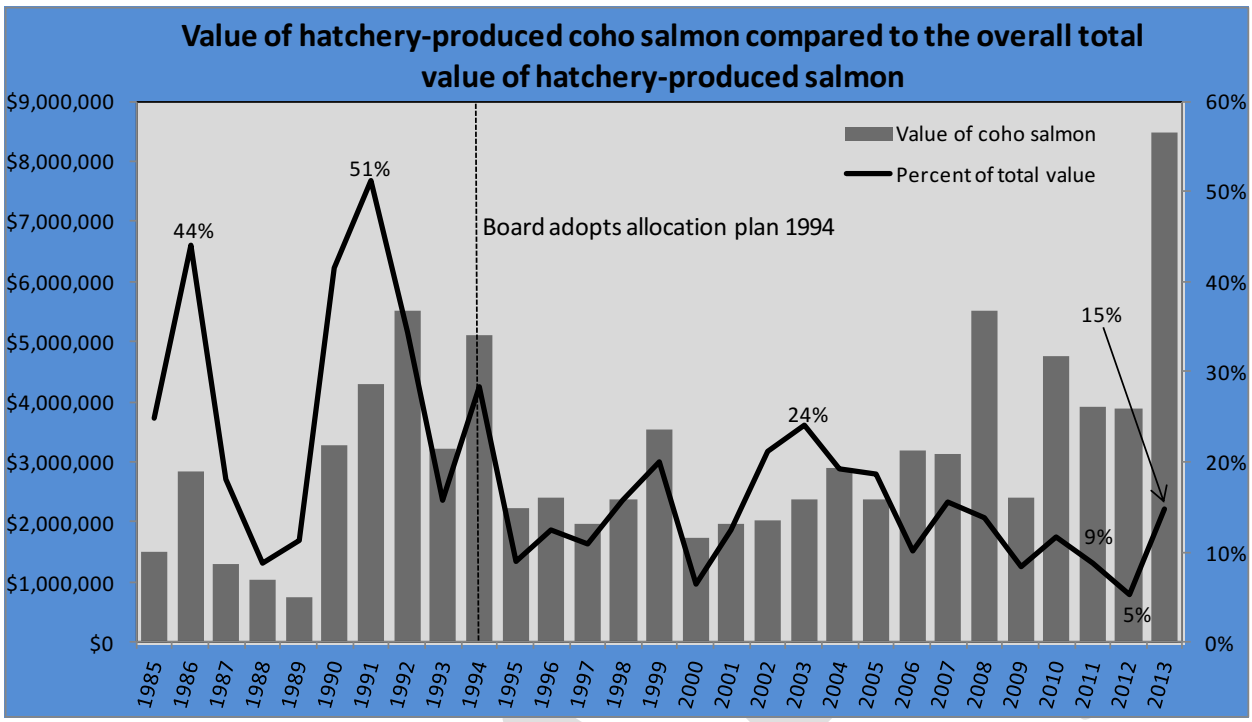
New chum programs at Port Lucy and Crawfish Inlet are located in outside areas and have the potential to change the above circumstances to some extent, particularly because there are few or no net fisheries in the migratory path as the chum return to their natal release sites. Southeast Cove, Kuiu Island is similarly situated except it potentially will have some seine interception during Chatham Strait pink salmon directed fisheries in late July. Nevertheless, the run timing for Southeast Cove chum will favor troll interception from Port Malmesbury to Keku Strait rather than the seine fleet. Southeast Cove terminal harvest area is small, rocky, and poorly suited for troll drags.

SSRAA has a permit to produce chum salmon at Port Assumption near Craig, Alaska. If this program goes forward it could also benefit the troll fleet as it is located on the outside waters where fish will migrate via traditional troll fisheries. Summer chum run timing should segregate these fish from net fisheries for the most part, but early Noyes Island seine openings may intercept some of the returning chum.

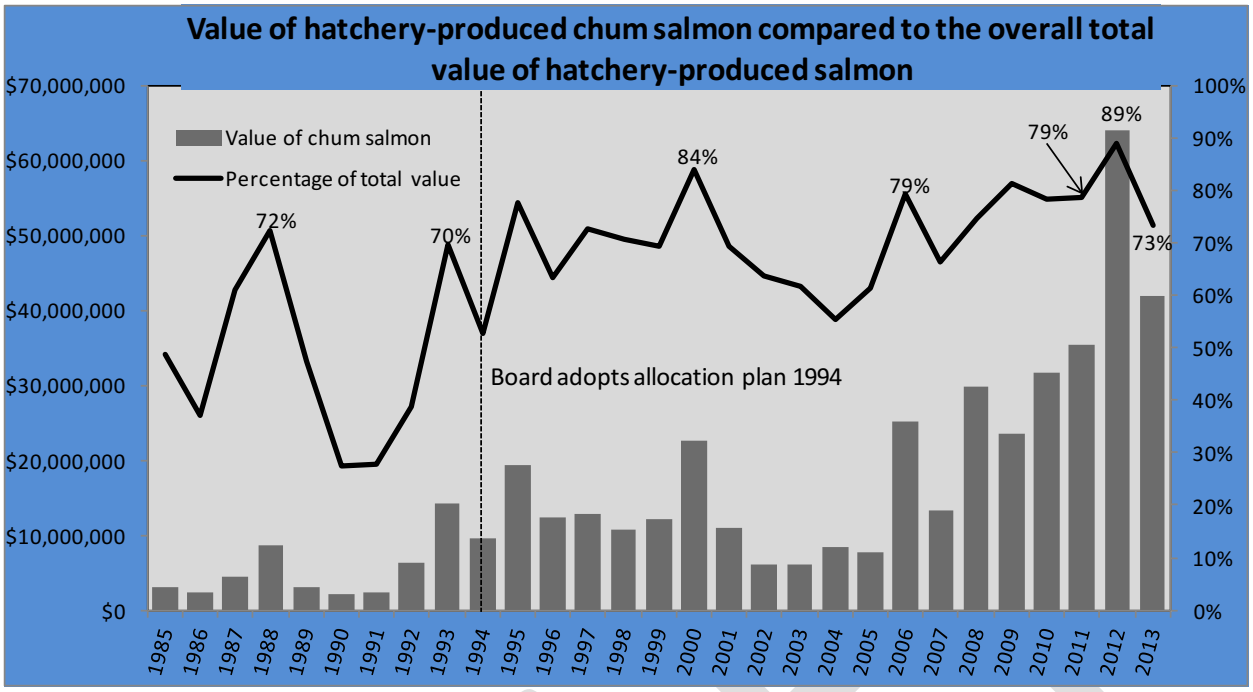
The new chum production, Crawfish, Port Lucy, and SE Cove, has the potential to move the trollers into their allocation range assuming the trollers maintain current exploitation rates on Chinook, coho, and chum salmon production. Certainly troll values will increase; it is the proportions that are unknown.



Graph x. Value of enhanced salmon in southeast Alaska from 1985 to 2014, a thirty year period. In the first decade average value was less than $10 million, the next decade averaged close to $20 million in value, while the past decade took a considerable jump in value to $40 million or more.



Graph xx. Coho salmon has been the second most valuable species second to chum salmon in total value. Coho are relatively easy to produce in a hatchery and lake environment. Marine survival of hatchery reared coho normally range from range from 6% to 10% and have relatively high exploitation rates by the troll fleet. Production has increased since the inception of the allocation plan but the overall value has moved up only slightly. As a proportion of the total value of enhanced fish, coho has declined from around 20% of the total value to 10% or less. This is driven more by the tremendous increase in chum value than any other factor. See Graph xxx.



Graph xxx. Chum salmon value has increased since 1994 to a greater extent than other salmon species. In the 1980s chum value was in the $5 million range while the past ten year average is $29.8 million for all gear combined. As a proportion of total value, chum has also increased. In the pre-allocation years the proportion was about 50% while the past ten year average is about 75%.

Conclusions

<Conclusions section will not be developed until gear group consensus. This seems unlikely to occur before the December 2015 JRPT meeting. However, after review of the document if there seems to be consensus on certain points, they could be added to conclusion section as draft or interim>

References

Amend, Don 1993, Allocation of Enhanced Salmon, Southeast Allocation Task Force. Ketchikan, AK

Comprehensive Salmon Enhancement Plan: Phase II 1994 Update and Action Planhttp://www.sf.adfg.state.ak.us/FedAidPDFs/CFSP.28.pdf

Comprehensive Salmon Enhancement Plan: Phase III, 2004 http://www.adfg.alaska.gov/static/fishing/PDFs/hatcheries/plans/se_comprehensivesalmonplan_p3.pdf

Elias, Tom 1994 Finding of the Alaska Board of Fisheries, #94-148-FB Southeast Alaska Area Enhanced Salmon Allocation Management Plan 5 AAC 33.364. Ketchikan, AK

Pacific Coastal Salmon Recovery Fund, 2002 http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/pcsrf/pcsrf-rpt-2002.pdf

Reifenstuhl, S., et.al., 1999 Pacific Coastal Salmon Recovery Initiative. Sitka, AK

Appendices

Joint RPT Minutes
Findings of the Alaska Board of Fisheries 94-148-FB
Allocation percentage history
Allocation of Enhanced Salmon by Dr. Don Amend
Benefit Cost Analysis

Southeast Allocation Base Period 1985 - 1991 (#94-148-FB)

Species	Gear	Value	1985-1991 Percent	Total	Annual Average Value	Percent Value	1985-1991 Total	Annual Full Production Value	Annual Full Production Percent	Total
Coho				$ 15,018,474			$ 2,145,496.29			$ 4,201,270
	Troll	$ 10,775,635	71.7%		$ 1,539,376	71.7%		$ 3,021,781	71.9%	
	Seine	$ 1,626,678	10.8%		$ 232,383	10.8%		$ 540,786	12.9%	
	Gillnet	$ 2,616,161	17.4%		$ 373,737	17.4%		$ 638,703	15.2%	
Chinook				$ 5,266,284			$ 752,326.29			$ 5,473,259
	Troll	$ 4,559,573	86.6%		$ 651,368	86.6%		$ 4,773,109	87.2%	
	Seine	$ 260,671	4.9%		$ 37,239	4.9%		$ 359,042	6.6%	
	Gillnet	$ 446,040	8.5%		$ 63,720	8.5%		$ 341,108	6.2%	
Chum				$ 26,048,248			$ 3,721,178.29			$ 24,632,796
	Troll	$ 521,184	2.0%		$ 74,455	2.0%		$ 293,658	1.2%	
	Seine	$ 17,265,856	66.3%		$ 2,466,551	66.3%		$ 16,010,792	65.0%	
	Gillnet	$ 8,261,208	31.7%		$ 1,180,173	31.7%		$ 8,328,346	33.8%	
Pinks				$ 3,675,425			$ 525,060.71			$ 2,197,761
	Troll	$ 124,857	3.4%		$ 17,837	3.4%		$ 57,882	2.6%	
	Seine	$ 2,377,096	64.7%		$ 339,585	64.7%		$ 1,370,607	62.4%	
	Gillnet	$ 1,173,472	31.9%		$ 167,639	31.9%		$ 769,272	35.0%	
Sockeye				$ 4,196,804			$ 599,543.43			$ 2,150,892
	Troll	$ 119,287	2.8%		$ 17,041	2.8%		$ 51,810	2.4%	
	Seine	$ 1,856,903	44.2%		$ 265,272	44.2%		$ 953,598	44.3%	
	Gillnet	$ 2,220,614	52.9%		$ 317,231	52.9%		$ 1,145,484	53.3%	
All Species				$ 54,205,235			$ 7,743,605.00			**$ 38,655,978**
	Troll	$ 16,100,536	29.7%		$ 2,300,077	29.7%		**$ 8,198,240**	**21.2%**	
	Seine	$ 23,387,204	43.1%		$ 3,341,029	43.1%		**$ 19,234,825**	**49.8%**	
	Gillnet	$ 14,717,495	27.2%		$ 2,102,499	27.2%		**$ 11,222,913**	**29.0%**	

NOTES:

1. Current annual production includes permited capacity on existing ongoing projects using assumed survival rates and average prices, weights
2. Future production includes Deep Cove Chinook, Snettisham sockeye, and Chilkat Lake sockeye enhancement
   - Chilkat will produce 264,000 sockeye: 250,800 to gillnet, 13,200 to seiners
   - Snettisham will produce 320,000 sockeye: 288,000 gillnet, 32,000 seiners
   - Beaver Falls and Klawock will produce 259,000 sockeye: 123,000 gillnet, 130,000 seine, 5,000 troller (current production)
   - Deep Cove will produce 75,000 harvestable Chinook: 55,250 troll, 14,400 seine, 5,250 gillnet
3. AAI (Alaska Aquaculture Inc) added November 1992: 300,000: gillnet 239,000, seine, 61,000 chum
4. Future potential is a best guess of what might happen. It is not an allocation.

Annual Value by Gear and Species 185-1991 Table from Board of Fish #94-148-FB finding

Southeast Allocation Base Period 1985 - 1991 (#94-148-FB)

Species		1985		1986		1987		1988		1989
Coho										
	Troll	$ 1,120,260		$ 2,112,686		$ 856,309		$ 632,589		$ 575,520
	Seine	$ 242,393		$ 343,375		$ 253,299		$ 165,428		$ 111,567
	Gillnet	$ 141,413		$ 372,281		$ 191,580		$ 253,141		$ 63,014
Chinook										
	Troll	$ 277,615		$ 287,758		$ 602,578		$ 1,006,808		$ 858,148
	Seine	$ 19,863		$ 27,627		$ 8,421		$ 26,095		$ 62,598
	Gillnet	$ 8,192		$ 17,641		$ 20,803		$ 126,444		$ 84,369
Chum										
	Troll	$ 18,352		$ -		$ -		$ 228,299		$ 150,186
	Seine	$ 2,434,775		$ 1,914,279		$ 3,415,435		$ 4,800,895		$ 1,608,162
	Gillnet	$ 495,683		$ 466,695		$ 979,408		$ 3,659,772		$ 1,392,331
Pinks										
	Troll	$ 4,559		$ -		$ 1,909		$ 12,166		$ 3,854
	Seine	$ 460,262		$ 233,509		$ 432,197		$ 73,214		$ 475,615
	Gillnet	$ 313,174		$ 164,939		$ 64,125		$ 64,125		$ 307,825
Sockeye										
	Troll	$ -		$ -		$ -		$ 107,554		$ 11,733
	Seine	$ 271,551		$ 252,000		$ 189,296		$ 410,095		$ 460,868
	Gillnet	$ 241,614		$ 224,306		$ 170,328		$ 444,065		$ 475,552
All Species										
	Troll	$ 1,420,786	23.5%	$ 2,400,444	37.4%	$ 1,460,796	20.3%	$ 1,987,416	16.5%	$ 1,599,441
	Seine	$ 3,428,844	56.7%	$ 2,770,790	43.2%	$ 4,298,648	59.8%	$ 5,475,727	45.6%	$ 2,718,810
	Gillnet	$ 1,200,076	19.8%	$ 1,245,862	19.4%	$ 1,426,244	19.8%	$ 4,547,547	37.9%	$ 2,323,091
	Total	$ 6,049,706		$ 6,417,096		$ 7,185,688		$ 12,010,690		$ 6,641,342
5 Year Average		1985 - 1989		1986 - 1990		1987 - 1991				
	Troll	$ 8,868,883	23.2%	$ 11,222,626	28.0%	$ 12,279,306	29.4%			
	Seine	$ 18,692,819	48.8%	$ 17,581,992	43.8%	$ 17,187,570	41.2%			
	Gillnet	$ 10,742,820	28.0%	$ 11,323,618	28.2%	$ 12,271,557	29.4%			
	Total	$ 38,304,522		$ 40,128,236		$ 41,738,433				

Southeast Allocation Base Period 1985 - 1991 (#94-148-FB)

1987		1988		1989		1990		1991		Total Value	Percent
$ 856,309		$ 632,589		$ 575,520		$ 2,615,031		$ 2,863,240		$ 10,775,635	71.7%
$ 253,299		$ 165,428		$ 111,567		$ 227,665		$ 282,951		$ 1,626,678	10.8%
$ 191,580		$ 253,141		$ 63,014		$ 433,459		$ 1,161,273		$ 2,616,161	17.4%
$ 602,578		$ 1,006,808		$ 858,148		$ 969,528		$ 557,138		$ 4,559,573	87%
$ 8,421		$ 26,095		$ 62,598		$ 50,626		$ 65,441		$ 260,671	5%
$ 20,803		$ 126,444		$ 84,369		$ 124,042		$ 64,549		$ 446,040	8%
$ -		$ 228,299		$ 150,186		$ 122,652		$ 1,695		$ 521,184	2%
$ 3,415,435		$ 4,800,895		$ 1,608,162		$ 1,457,908		$ 1,634,402		$ 17,265,856	66%
$ 979,408		$ 3,659,772		$ 1,392,331		$ 580,084		$ 687,235		$ 8,261,208	32%
$ 1,909		$ 12,166		$ 3,854		$ 67,318		$ 35,051		$ 124,857	3%
$ 432,197		$ 73,214		$ 475,615		$ 342,602		$ 359,697		$ 2,377,096	65%
$ 64,125		$ 64,125		$ 307,825		$ 150,760		$ 108,524		$ 1,173,472	32%
$ -		$ 107,554		$ 11,733		$ -		$ -		$ 119,287	3%
$ 189,296		$ 410,095		$ 460,868		$ 239,216		$ 33,877		$ 1,856,903	44%
$ 170,328		$ 444,065		$ 475,552		$ 492,529		$ 172,220		$ 2,220,614	53%
$ 1,460,796	20.3%	$ 1,987,416	16.5%	$ 1,599,441	24.1%	$ 3,774,529	47.9%	$ 3,457,124	43.1%	$ 16,100,536	**29.7%**
$ 4,298,648	59.8%	$ 5,475,727	45.6%	$ 2,718,810	40.9%	$ 2,318,017	29.4%	$ 2,376,368	29.6%	$ 23,387,204	**43.1%**
$ 1,426,244	19.8%	$ 4,547,547	37.9%	$ 2,323,091	35.0%	$ 1,780,874	22.6%	$ 2,193,801	27.3%	$ 14,717,495	**27.2%**
$ 7,185,688		$ 12,010,690		$ 6,641,342		$ 7,873,420		$ 8,027,293		$ 54,205,235	
1987 - 1991										Basis for Allocation Ranges	
$ 12,279,306	29.4%										
$ 17,187,570	41.2%										
$ 12,271,557	29.4%										
$ 41,738,433											

Annual Value by Gear and Species 185-1991 Table from Board of Fish #94-148-FB finding, continued

Sum of Value	Gear			
Year	**troll**	**gillnet**	**seine**	**Grand Total**
1994	5,317,271	3,797,692	8,876,576	17,991,540
1995	2,871,032	7,169,053	14,789,338	24,829,423
1996	3,224,761	4,184,597	12,061,185	19,470,543
1997	3,004,073	4,037,169	10,752,998	17,794,241
1998	1,973,521	3,792,912	9,277,676	15,044,109
1999	3,461,492	4,110,113	10,061,642	17,633,247
2000	3,465,550	6,219,903	17,113,326	26,798,778
2001	3,752,912	4,852,294	7,170,159	15,775,364
2002	2,303,490	3,627,174	3,645,488	9,576,152
2003	2,774,408	3,385,285	3,744,188	9,903,881
2004	4,139,539	5,400,059	5,498,187	15,037,785
2005	3,522,736	4,707,650	4,405,236	12,635,622
2006	4,192,671	12,215,370	15,109,033	31,517,075
2007	4,728,923	8,851,525	6,531,971	20,112,418
2008	7,319,611	16,385,073	16,158,998	39,864,442
2009	4,032,749	12,255,256	12,746,563	29,034,568
2010	7,215,190	15,728,240	17,451,677	40,395,107
2011	9,109,654	20,391,332	15,430,492	44,931,479
2012	8,113,226	28,453,598	35,570,351	72,288,600
2013	13,266,168	19,221,485	24,815,716	54,502,787
2014	7,900,306	17,050,323	12,519,221	37,469,850
2015	9,120,909	20,168,996	21,157,491	50,447,396
2016	9,120,909	20,168,996	21,157,491	50,447,396
2017	9,626,486	20,168,996	21,157,491	50,952,973
2018	9,967,550	20,168,996	21,157,491	51,294,037
2019	11,379,955	20,168,996	21,157,491	52,706,442
2020	14,713,556	16,135,197	26,235,289	57,084,042
2021	17,000,690	16,135,197	26,235,289	59,371,176
2022	17,129,091	16,135,197	26,235,289	59,499,576
2023	17,129,091	16,135,197	26,235,289	59,499,576
2024	17,129,091	16,135,197	26,235,289	59,499,576
2025	17,129,091	16,135,197	26,235,289	59,499,576
2026	17,129,091	16,135,197	26,235,289	59,499,576
2027	17,129,091	16,135,197	26,235,289	59,499,576
2028	17,129,091	16,135,197	26,235,289	59,499,576
2029	17,129,091	16,135,197	26,235,289	59,499,576
2030	17,129,091	16,135,197	26,235,289	59,499,576

Allocation Value Actual 1994-2014 and Projected for 2015-2030, New Production Included

5-Year Rolling Averages for Gear Groups

Source: ADF&G ESTIMATES (SE ALLOCATION DATA FROM ADF&G)

	SE	SE	SE		Annual Percent		
	Gear						
Period	Troll	Gillnet	Seine	TOTAL	**troll 27-32%**	**gillnet 24-29%**	**seine 44-49%**
94-98	17%	24%	59%	100%	29.6%	21.1%	49.3%
95-99	15%	25%	60%	100%	11.6%	28.9%	59.6%
96-00	16%	23%	61%	100%	16.6%	21.5%	61.9%
97-01	17%	25%	58%	100%	16.9%	22.7%	60.4%
98-02	18%	27%	56%	100%	13.1%	25.2%	61.7%
99-03	20%	28%	52%	100%	19.6%	23.3%	57.1%
00-04	21%	30%	48%	100%	12.9%	23.2%	63.9%
01-05	26%	35%	39%	100%	23.8%	30.8%	45.5%
02-06	22%	37%	41%	100%	24.1%	37.9%	38.1%
03-07	22%	39%	40%	100%	28.0%	34.2%	37.8%
04-08	20%	40%	40%	100%	27.5%	35.9%	36.6%
05-09	18%	41%	41%	100%	27.9%	37.3%	34.9%
06-10	17%	41%	42%	100%	13.3%	38.8%	47.9%
07-11	19%	42%	39%	100%	23.5%	44.0%	32.5%
08-12	16%	41%	43%	100%	18.4%	41.1%	40.5%
09-13	17%	40%	44%	101%	13.9%	42.2%	43.9%
10-14	18%	40%	42%	101%	17.9%	38.9%	43.2%
11-15	18%	41%	42%	101%	20.3%	45.4%	34.3%
	18%	40%	43%	101%	11.2%	39.4%	49.2%
	20%	40%	41%	101%	24.3%	35.3%	45.5%
	19%	41%	40%	100%	21.1%	45.5%	33.4%
	19%	39%	41%	100%	18.1%	40.0%	41.9%
16-20	21%	37%	42%	100%	18.1%	40.0%	41.9%
	23%	34%	43%	100%	18.9%	39.6%	41.5%
	25%	32%	43%	100%	19.4%	39.3%	41.2%
	27%	29%	44%	100%	21.6%	38.3%	40.1%
	28%	27%	44%	100%	25.8%	28.3%	46.0%
21-25	29%	27%	44%	100%	28.6%	27.2%	44.2%
	29%	27%	44%	100%	28.8%	27.1%	44.1%
	29%	27%	44%	100%	28.8%	27.1%	44.1%
	29%	27%	44%	100%	28.8%	27.1%	44.1%
	29%	27%	44%	100%	28.8%	27.1%	44.1%
26-30	29%	27%	44%	100%	28.8%	27.1%	44.1%
					28.8%	27.1%	44.1%
					28.8%	27.1%	44.1%
					28.8%	27.1%	44.1%
					28.8%	27.1%	44.1%

Table 19.–Weekly troll chum salmon harvest and effort in Icy Straits/Homeshore, Neets Bay/West Behm Canal, Sitka Sound, and the region-wide totals 2010–2014.

Icy Strait/Homeshore/Northern Chatham Strait

	2010		2011		2012		2013		2014	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
23	–	–	–	–	–	–	14,103	43	–	–
24	–	–	5,613	27	554	24	35,710	118	99	5
25	–	–	23,571	100	8,088	95	140,859	154	2,290	30
26	16,603	30	79,951	140	9,386	83	99,977	141	15,405	36
27	14,878	36	27,496	87	7,340	37	18,810	57	2,196	19
28	15,863	32	451	6	1,665	18	1,111	15	[a]	[a]
29	2,137	14	[a]	[a]	[a]	[a]	[a]	[a]	–	–
Total	49,556	56	137,244	158	27,175	133	311,236	193	19,990	51

Neets Bay/West Behm Canal

	2010		2011		2012		2013		2014	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
26	[a]	[a]	[a]	[a]	13,862	45	2,227	11	–	–
27	3,968	10	1,225	17	32,108	106	18,250	41	1,680	11
28	37,631	48	35,576	78	77,851	209	54,597	106	12,141	43
29	116,454	106	129,775	141	99,560	247	67,987	115	47,889	85
30	45,881	82	122,864	153	78,078	182	22,383	77	32,729	68
31	393	4	48,499	97	17,238	97	10,554	20	15,748	47
32	[a]	[a]	24,527	45	1,714	10	3,877	15	9,438	18
33	[a]	[a]	6,387	21	8,750	26	328	4	1,306	10
34	–	–	8,289	18	13,920	33	369	4	1,024	5
35	–	–	16,230	31	29,897	55	914	5	1,331	7
36	599	3	20,563	47	28,143	72	2,643	7	6,666	13
37	3,503	5	10,499	36	4,117	51	2,007	7	13,494	26
38	6,736	6	16,728	25	872	10	–	–	4,866	18
Total	216,489	114	441,371	175	406,335	265	186,701	137	148,330	98

Sitka Sound

	2010		2011		2012		2013		2014	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
25	–	–	–	–	–	–	831	3	–	–
26	–	–	–	–	–	–	7,305	14	–	–
27	–	–	–	–	–	–	2,495	12	–	–
28	–	–	–	–	–	–	5,599	13	–	–
29	112	4	–	–	–	–	5,531	18	–	–
30	26	3	[a]	[a]	–	–	33,582	46	–	–
31	18,421	44	3,798	24	377	3	80,843	94	522	4
32	35,632	84	14,962	81	15,529	39	122,081	101	9,485	34
33	30,098	86	4,315	34	6,742	31	153,748	106	198	8
34	22,941	51	90	3	1,136	8	42,120	78	180	3
35	2,930	18	31	3	–	–	1,198	8	871	5
36	5,958	15	–	–	–	–	[a]	[a]	[a]	[a]
Total	116,118	105	23,428	92	23,797	51	455,510	147	11,411	42

-continued-

Table 19.–Page 2 of 2.

Region-wide Totals

	2010		2011		2012		2013		2014	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
23	–	–	[a]	[a]	[a]	[a]	14105	44	[a]	[a]
24	–	–	5613	27	558	25	35727	120	151	8
25	–	–	23,571	100	8,239	102	141,851	162	2,359	32
26	16,608	32	80,146	142	23,234	125	109,594	167	15,453	40
27	18,846	45	28,873	105	39,422	143	41,355	101	4,089	33
28	53,494	69	36,829	88	79,508	226	63,492	137	12,523	49
29	118,703	124	130,225	145	99,685	250	74,708	139	47,893	86
30	45,907	85	123,183	156	78,078	182	56,088	123	32,764	72
31	18,814	46	52,297	121	17,615	100	92,533	117	16,414	55
32	36,819	85	39,489	125	17,243	49	127,392	117	20,126	58
33	30,215	87	10,702	55	15,736	58	154,152	111	1,546	19
34	22,941	51	8,379	21	14,951	40	44,037	84	1,297	9
35	2,930	18	16,261	34	29,906	56	2,112	13	2,240	13
36	6,557	18	20,569	48	28,143	72	2,817	9	11,464	28
37	3,503	5	10,570	38	4,117	51	2,156	8	13,494	26
38	6,736	6	16,778	27	872	10	[a]	[a]	4,866	18
Total	382,163	193	603,533	299	457,352	352	962,181	366	186,710	183

Notes: Numbers for harvest and permits fished are based on vessels that targeted chum salmon.
Region-wide totals do not reflect the sum of these directed fisheries.
– denotes no effort or harvest.

[a] confidential data

An Alternative Benefit: Cost Estimate for SE Alaska All Salmon

Introduction

There are a variety of ways to evaluate the benefits of salmon enhancement. 1) use three percent money paid in by fishermen against the value fishermen get from harvest, 2) cost of operating hatchery programs against value they provide to fishermen, 3) same as two but include cost recovery value, 4) total economic output vis-à-vis a McDowell type report, among other approaches.

The salmon fisheries of southeast Alaska consist of a wild component (75%) and an enhanced component (25%) and are prosecuted simultaneously. Sometimes these fisheries are discrete such as Kendrick Bay or Amalga Harbor terminal harvest areas, but often harvest of wild and enhanced salmon occurs in mixed stock common property fisheries. The value of each can be determined by CWT and otolith sampling but in terms of prosecution of the fisheries and in the eyes of the CFEC limited entry permit, wild and enhanced are integrally linked. Wild and enhanced dovetail or work in concert with one another.

Therefore, simply as an exercise, looking at the wild and enhanced benefits as they accrue to troll, gillnet, and seine is informative.

Methods:

1. "Cost" side: estimated 3% Salmon Enhancement Tax (SET) paid by gear group.
    a. 3% SET is not tracked by gear; however an estimate of 3% SET by gear might be made by taking the total annual value by gear x 3%.
    b. Total Value estimates by gear were obtained from CFEC BIT data.
    c. Seine and gillnet values are for SEAK. Troll includes Yakutat, which may make up 1-2% (?) of the total value. For this initial analysis, no adjustment is made for the (slightly) larger troll area.
2. "Benefit" side: value of SEAK enhanced harvest from allocation data.
3. Offset: 3% SET collected in any given year funds future releases & returns. For instance, 3% tax collected in 2014 might fund 2015 chum releases which have a major age class (four-year-olds) return in 2018. In this example, the cost year of 2014 would have an offset of 4 years until the major benefit year of 2018. A case might be made for a 4 or 5 year offset; I've chosen to use a 4 year offset in this analysis.
4. Calculations are made by gear for annual and 5-year rolling averages.

Data:

Table 1. Total Value of SEAK Salmon				
Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total
1994	17,207,769	38,943,302	61,164,567	117,315,638
1995	16,899,040	16,673,792	55,806,812	89,379,644
1996	14,430,995	16,394,667	42,813,455	73,639,117
1997	11,143,699	18,853,651	40,813,997	70,811,347
1998	11,345,286	14,974,147	45,509,746	71,829,179
1999	11,489,118	20,442,587	56,402,089	88,333,794
2000	10,940,909	14,786,178	38,060,764	63,787,851
2001	11,316,836	17,191,517	48,742,800	77,251,153
2002	8,132,853	13,164,474	20,244,170	41,541,497
2003	8,903,210	14,812,555	26,705,739	50,421,504
2004	11,778,867	29,016,910	31,672,452	72,468,229
2005	12,753,519	26,770,816	36,073,649	75,597,984
2006	20,007,955	34,645,576	27,536,028	82,189,559
2007	15,081,267	30,985,116	49,646,050	95,712,433
2008	24,209,429	36,566,992	40,986,039	101,762,460
2009	18,578,453	22,942,077	48,417,377	89,937,907
2010	26,618,998	31,945,182	56,238,100	114,802,280
2011	31,126,506	32,407,478	122,177,082	185,711,066
2012	37,475,213	29,859,299	73,082,389	140,416,901
2013	29,456,345	41,312,132	154,063,995	224,832,472
Grand Total	**348,896,267**	**502,688,448**	**1,076,157,300**	**1,927,742,015**
	100.0%	100.0%	100.0%	100.0%

Note: Color scales are relative to each gear group (applied on a column - by - column basis).

Table 1. Total value for all commercially harvested salmon, enhanced and wild, for years 1994 to 2013. Percents are for individual gear and therefore all percents add to 100%.

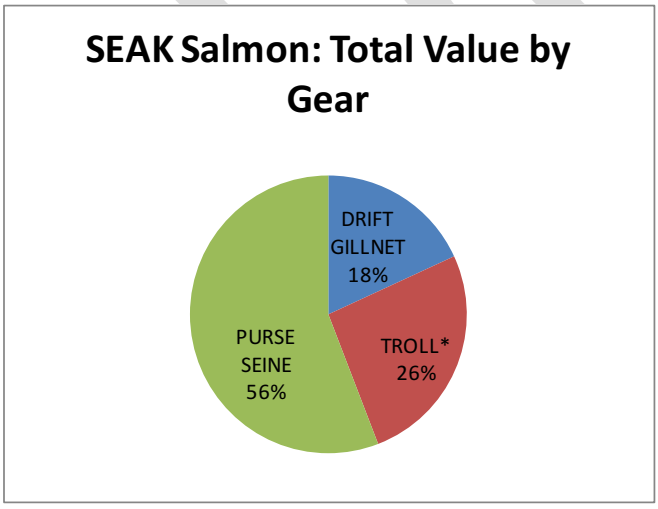


Chart 1. Total Value for the period (1994-2013) is 1.93 billion dollars with proportions by gear. Note wild and enhanced salmon proportions are very different than the Allocation percentages. Gillnet percentage is 18% based on all salmon harvest and troll is 26%.

Table 2. Estimate of SET by Gear: 3% of Total Value				
Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total
1994	516,233	1,168,299	1,834,937	3,519,469
1995	506,971	500,214	1,674,204	2,681,389
1996	432,930	491,840	1,284,404	2,209,174
1997	334,311	565,610	1,224,420	2,124,340
1998	340,359	449,224	1,365,292	2,154,875
1999	344,674	613,278	1,692,063	2,650,014
2000	328,227	443,585	1,141,823	1,913,636
2001	339,505	515,746	1,462,284	2,317,535
2002	243,986	394,934	607,325	1,246,245
2003	267,096	444,377	801,172	1,512,645
2004	353,366	870,507	950,174	2,174,047
2005	382,606	803,124	1,082,209	2,267,940
2006	600,239	1,039,367	826,081	2,465,687
2007	452,438	929,553	1,489,382	2,871,373
2008	726,283	1,097,010	1,229,581	3,052,874
2009	557,354	688,262	1,452,521	2,698,137
2010	798,570	958,355	1,687,143	3,444,068
2011	933,795	972,224	3,665,312	5,571,332
2012	1,124,256	895,779	2,192,472	4,212,507
2013	883,690	1,239,364	4,621,920	6,744,974
Grand Total	**10,466,888**	**15,080,653**	**32,284,719**	**57,832,260**
	3.0%	3.0%	3.0%	3.0%

Table 2. Using the total commercial harvest by gear the 3% dollars paid is calculated. The 3% is collected on enhanced as well as wild salmon. These are monies that have been paid out to SSRAA and NSRAA. Trollers have paid $15.0 million, gillnet $10.4 million, and seine $32.3 million.

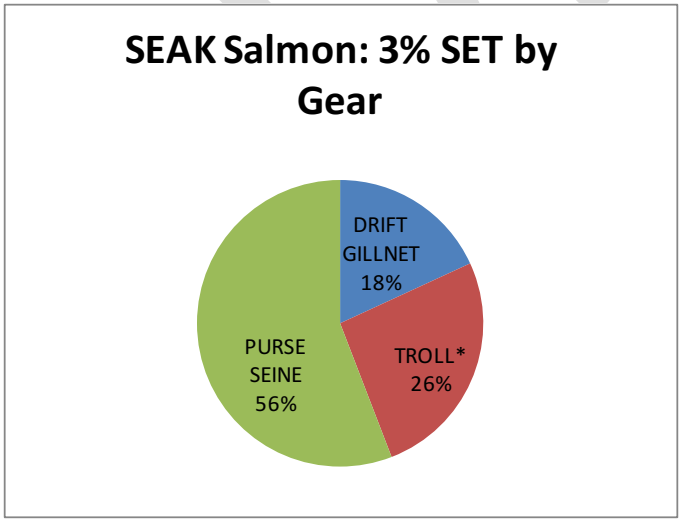


Chart 2. Estimated 3% SET collected for the period is 57.8 million dollars and is represented by the same percentages as the total salmon values by gear.

Table 3. Enhanced Value - SEAK Salmon				
Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total
1994	3,797,692	5,317,271	8,876,576	17,991,540
1995	7,169,053	2,871,032	14,789,338	24,829,423
1996	4,184,597	3,224,761	12,061,185	19,470,543
1997	4,037,169	3,004,073	10,752,998	17,794,241
1998	3,792,912	1,973,521	9,277,676	15,044,109
1999	4,110,113	3,461,492	10,061,642	17,633,247
2000	6,219,903	3,465,550	17,113,326	26,798,778
2001	4,852,294	3,752,912	7,170,159	15,775,364
2002	3,627,174	2,303,490	3,645,488	9,576,152
2003	3,385,285	2,774,408	3,744,188	9,903,881
2004	5,400,059	4,139,539	5,498,187	15,037,785
2005	4,707,650	3,522,736	4,405,236	12,635,622
2006	12,215,370	4,192,671	15,109,033	31,517,075
2007	8,851,525	4,728,923	6,531,971	20,112,418
2008	16,385,073	7,320,371	16,158,998	39,864,442
2009	12,255,256	4,032,749	12,746,563	29,034,568
2010	15,728,240	7,215,190	17,451,677	40,395,107
2011	20,391,332	9,109,654	15,430,492	44,931,479
2012	28,453,598	8,113,226	35,570,351	72,137,175
2013	19,128,923	12,717,367	20,863,723	52,710,013
Grand Total	**188,693,218**	**97,240,936**	**247,258,807**	**533,192,962**
% of Total Value:	54.1%	19.3%	23.0%	27.7%

Table 3. Value of enhanced salmon by gear for 1994 – 2013. This table pulls out the enhanced value from Table 1 but shows the value percentage of enhanced salmon to total enhanced plus wild by gear. This could be viewed as relative importance of enhanced salmon by gear.

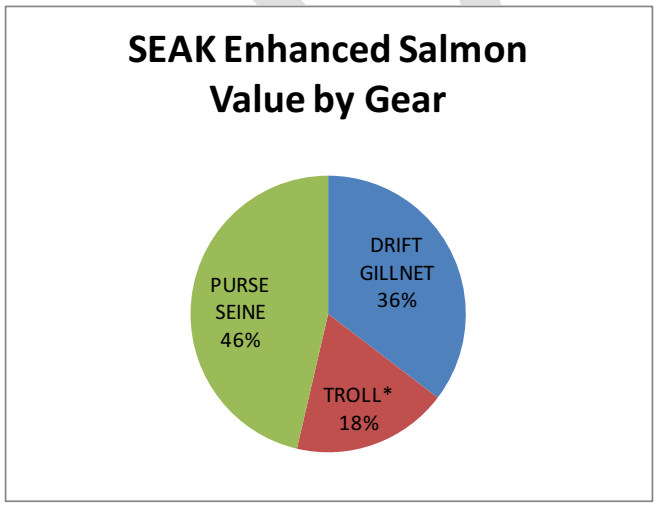


Chart 3. Percentage of enhanced salmon by gear for comparison to Table 3. Estimated value of enhanced production for the period is 533.2 million dollars, which is 27.7% of the total SEAK salmon value.

Table 4. Enhanced B:C estimates by gear (4-year offset)				
Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total
1994				
1995				
1996				
1997				
1998	7	2	5	4
1999	8	7	6	7
2000	14	7	13	12
2001	15	7	6	7
2002	11	5	3	4
2003	10	5	2	4
2004	16	9	5	8
2005	14	7	3	5
2006	50	11	25	25
2007	33	11	8	13
2008	46	8	17	18
2009	32	5	12	13
2010	26	7	21	16
2011	45	10	10	16
2012	39	7	29	24
2013	34	18	14	20
	25	**8**	**10**	**12**

Table 4. Enhanced Value by gear (Benefit) and divide by the 3% SET Estimate (Cost) by gear a benefit: cost can be calculated, as shown above in Table 4.

Overall, there is a 12:1 Benefit: Cost Ratio for the period with this gear split:

Gillnet 25:1 Troll 8:1 Seine 10:1

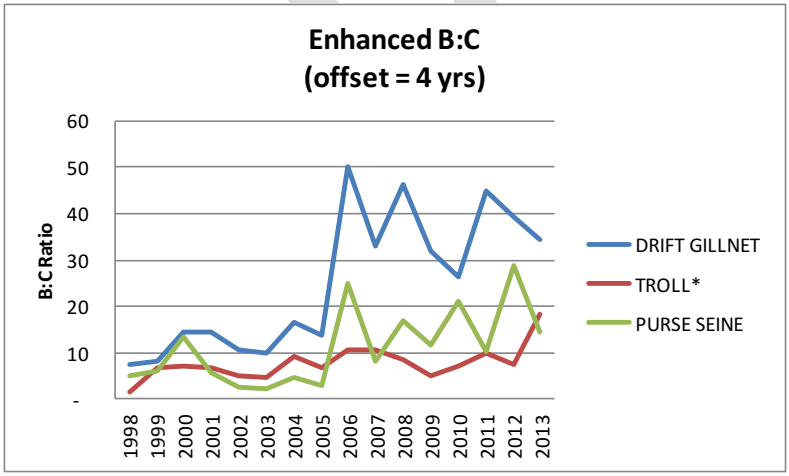


Chart 4. Benefit to Cost by gear for 1998 to 2013. Note product occurs in year 1998 but not accrue to benefits until four years later.

Table 5. Cumulative Enhanced B:C estimates by gear (4-year offset)					
Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total	
1994					
1995					
1996					
1997					
1998	7	2	5	4	
1999	8	3	6	5	
2000	10	4	8	7	
2001	11	5	7	7	
2002	11	5	6	7	
2003	10	5	6	6	
2004	11	5	6	6	
2005	11	5	5	6	
2006	14	6	6	7	
2007	16	6	6	8	
2008	18	6	7	9	
2009	20	6	7	9	
2010	20	6	8	10	
2011	22	7	8	10	
2012	24	7	10	11	
2013	25	8	10	12	

Table 5. Cumulative enhanced B:C by gear. This has the effect of smoothing out the annual fluctuations as shown in Chart 5.

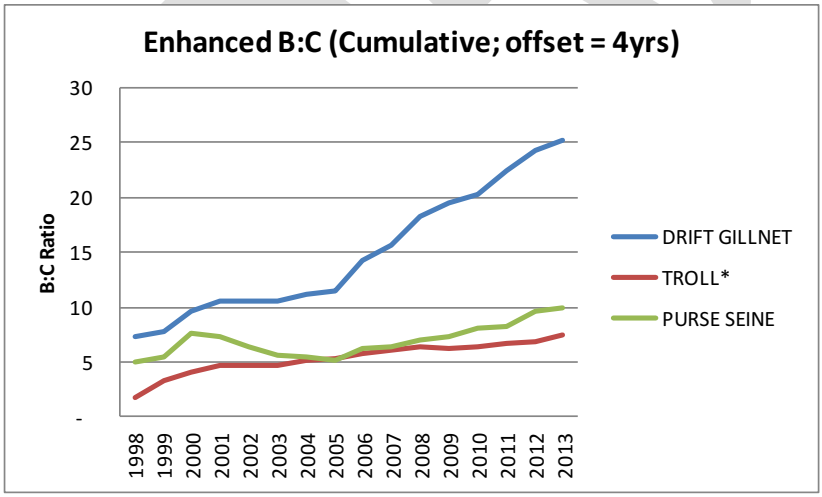


Chart 5. Benefit to Cost cumulative by gear 1998 to 2013.

Table 6. Percent of Value from Enhanced				
Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total
1994	22%	14%	15%	15%
1995	42%	17%	27%	28%
1996	29%	20%	28%	26%
1997	36%	16%	26%	25%
1998	33%	13%	20%	21%
1999	36%	17%	18%	20%
2000	57%	23%	45%	42%
2001	43%	22%	15%	20%
2002	45%	17%	18%	23%
2003	38%	19%	14%	20%
2004	46%	14%	17%	21%
2005	37%	13%	12%	17%
2006	61%	12%	55%	38%
2007	59%	15%	13%	21%
2008	68%	20%	39%	39%
2009	66%	18%	26%	32%
2010	59%	23%	31%	35%
2011	66%	28%	13%	24%
2012	76%	27%	49%	51%
2013	65%	31%	14%	23%
Grand Total	54%	19%	23%	28%

Table 6. Percentage of value each gear group derives from enhanced salmon for 1994 to 2013. Importance of enhanced fish to each gear type is evident.

What is driving the large B:C for drift gillnet? Dividing enhanced value by total value results in the portion of value from enhanced production. This shows that drift gillnet gets a much larger share of their value from enhanced fish.

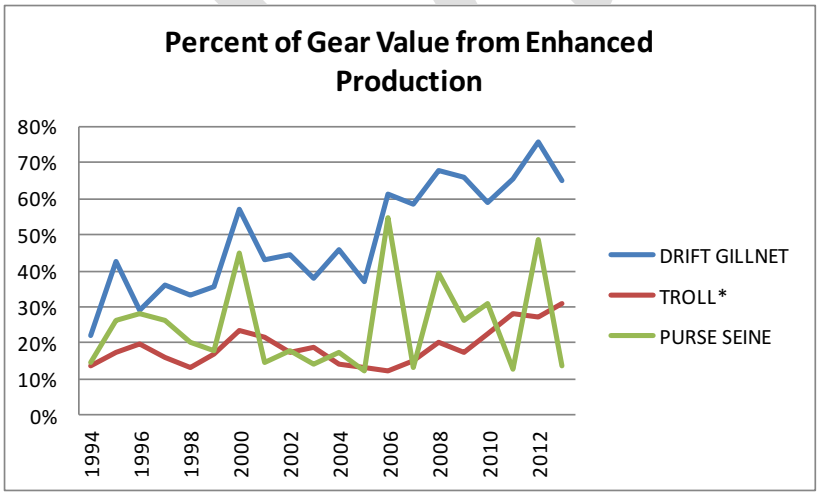


Chart 6. Chart plots Table 6 data. Troll and gillnet percent value from enhanced salmon show a general trend up while seine has an undulating high and low value. Seine value is pegged to odd year pink cycle abundance. Low seine value years correspond to large pink catches and high value.

Table 7. NON-ENHANCED (WILD+ non-AK Hatchery) VALUE				
Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total
1994	13,410,077	33,626,031	52,287,991	99,324,098
1995	9,729,987	13,802,760	41,017,474	64,550,221
1996	10,246,398	13,169,906	30,752,270	54,168,574
1997	7,106,530	15,849,578	30,060,999	53,017,106
1998	7,552,374	13,000,626	36,232,070	56,785,070
1999	7,379,005	16,981,095	46,340,447	70,700,547
2000	4,721,006	11,320,628	20,947,438	36,989,073
2001	6,464,542	13,438,605	41,572,641	61,475,789
2002	4,505,679	10,860,984	16,598,682	31,965,345
2003	5,517,925	12,038,147	22,961,551	40,517,623
2004	6,378,808	24,877,371	26,174,265	57,430,444
2005	8,045,869	23,248,080	31,668,413	62,962,362
2006	7,792,585	30,452,905	12,426,995	50,672,484
2007	6,229,742	26,256,193	43,114,079	75,600,015
2008	7,824,356	29,246,621	24,827,041	61,898,018
2009	6,323,197	18,909,328	35,670,814	60,903,339
2010	10,890,758	24,729,992	38,786,423	74,407,173
2011	10,735,174	23,297,824	106,746,590	140,779,587
2012	9,021,615	21,746,073	37,512,038	68,279,726
2013	10,327,422	28,594,765	133,200,272	172,122,459
Grand Total	**160,203,049**	**405,447,512**	**828,898,493**	**1,394,549,053**
% of Total Value	46%	81%	77%	72%
Non-enhanced relative to drift	1.0	2.5	5.2	

Table 7. Non enhanced value by gear for 1994 to 2013. Troll and seine derive 81% and 77% respectively from wild salmon harvests. Relative to gillnet, trollers get 2.5 times the value that gillnetters get; seiners 5.2 times.

The flip-side is this: trollers and seiners have much greater access to non-enhanced salmon. Of this non-enhanced value, trollers get 2.5x the value and seine 5.2x the value of drift gillnet.

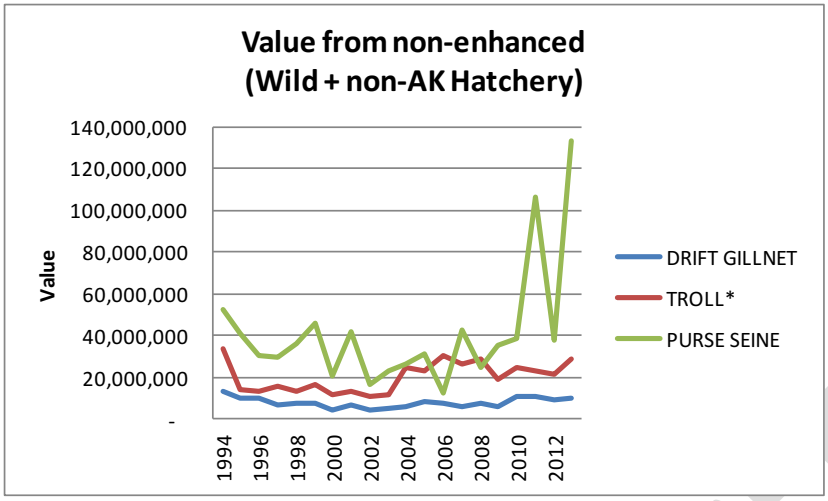


Chart 7. Graphic of Table 7 showing wild salmon harvest value by gear for 1994 – 2013.

Table 8. Enhanced B:C estimates by gear using TOTAL VALUE as the Benefit (4-year offset)

Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total
1994				
1995				
1996				
1997				
1998	22	13	25	20
1999	23	41	34	33
2000	25	30	30	29
2001	34	30	40	36
2002	24	29	15	19
2003	26	24	16	19
2004	36	65	28	38
2005	38	52	25	33
2006	82	88	45	66
2007	56	70	62	63
2008	69	42	43	47
2009	49	29	45	40
2010	44	31	68	47
2011	69	35	82	65
2012	52	27	59	46
2013	53	60	106	83
	43	**37**	**44**	**42**

Table 8. A unique way to look at benefit cost is to combine the value of wild and enhanced salmon compared to the cost of the enhancement program. This methodology allows viewing southeast fisheries in total as the

benefits to fishermen accrue from both types of production. Annual variation in B:C is great but long term B:C is similar for the three groups – 43:1 for gillnet, 37:1 for troll, and 44:1 for seine.

The original allocation plan probably envisioned a more stable sharing / growth of both enhanced and non-enhanced salmon value among gear groups. Un-foreseen circumstances have caused some un-expected imbalances. Above (Table 8.) is an alternative look at the data - where the Benefit side of the equation is changed from Enhanced Value to Total Value.

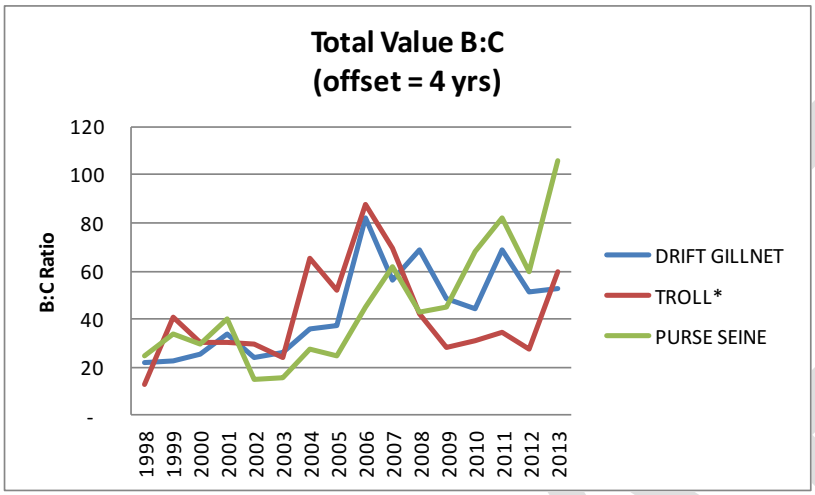


Chart 8. Annual benefit to cost graphed for total value of wild and enhance salmon. The trend for all groups is up since 1998 and is expected to continue rising. Chart 8 is a graphic of table 8.

Table 9. Cumulative TOTAL VALUE B:C estimates by gear (4-year offset)				
Year	DRIFT GILLNET	TROLL*	PURSE SEINE	Total
1994				
1995				
1996				
1997				
1998	22	13	25	20
1999	22	21	29	26
2000	23	23	29	27
2001	25	25	31	29
2002	25	25	28	27
2003	25	25	26	26
2004	26	29	26	27
2005	28	32	26	28
2006	31	36	27	30
2007	33	39	29	32
2008	36	39	30	34
2009	37	38	31	34
2010	38	37	33	35
2011	41	37	37	38
2012	42	36	39	38
2013	43	37	44	42

Table 9. Taking the same harvest data for enhanced and wild value, then calculating the running cumulative benefit to cost results in a smoothing of the trend. The trend is evident with the annual B:C in Table 8 and Chart 8, but can be seen more distinctly in Chart 9 below.

Here the same data is viewed cumulatively, smoothing out the annual fluctuations.

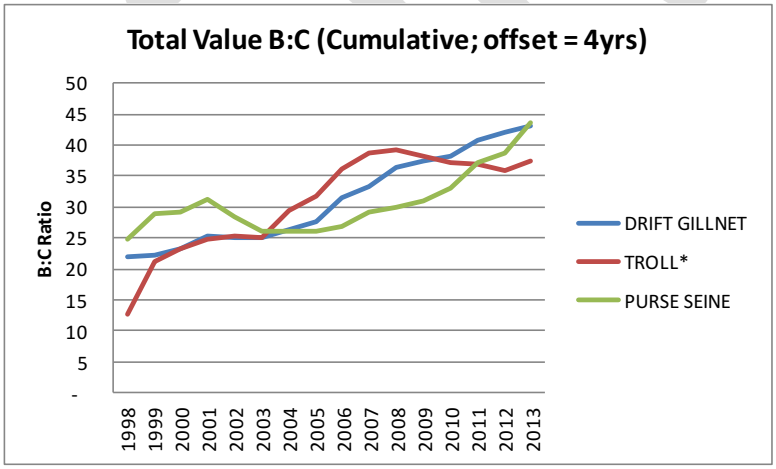


Chart 9. Cumulative benefit to cost of wild and enhanced salmon harvest. The benefits viewed in this fashion show similar outcomes for gillnet, troll, and seine in the past twenty years. In 1998, lagged four years from the start of the Allocation plan B:C ratios were in the 15 to 25 range compared to 2013 era where the B:C ratio is 40.

END

Adjustments for Cook Inlet Reporting Groups to the Addendum to FMS 16-10: Redefinition of Reporting Groups to Separate Cook Inlet into Four Groups for Genetic Stock Composition of the Commercial Harvest of Sockeye Salmon in the Kodiak Management Area, 2014-2016.

United Cook Inlet Drift Association, September 2017

Study Background to FMS 16-10, Shedd, et al., December 2016

"The Alaska Department of Fish and Game (ADF&G) used genetic mixed stock analysis (msa)* to estimate the stock composition and the stock-specific harvest of commercial sockeye salmon (Oncorhynchus Nerka) harvests in the Kodiak Management Area (KMA) from 2014 to 2016." (Shedd, et al., 2016). The first ADF&G report concerning the genetic msa was released in December 2016 as Fishery Manuscript Series No. 16-10, authors: Shedd, Foster, Dun, Hoyt, Wattum and Habicht (FMS 16-10). This genetic msa report FMS 16-10 was released to the public a few days prior to the Board of Fish (BOF) 2017 tri-annual Kodiak regulatory meeting. The FMS 16-10 report was released to the public nine (9) months after the close of submitting regulatory proposal changes for both the KMA and Cook Inlet Management Areas. The December 2016 public release of FMS 16-10 generated great concerns from the public, regional stakeholders, ADF&G managers and the BOF. Numerous questions arose as to the msa genetic findings, the significance of these findings and how these findings were to be used in the development and adjustments to salmon management plans and attending regulations.

In FMS 16-10, there were genetic findings concerning the sockeye harvests in KMA from six (6) regional reporting groups: 1. West of Chignik; 2. Chignik; 3. Cook Inlet; 4. Prince William Sound; 5. South of Cape Suckling and 6. Kodiak.

Addendum to FMS 16-10

At the January 2017 BOF meeting held in Kodiak, there was a specific request of ADF&G to further examine the Cook Inlet regional reporting group and divide it into four (4) subregional groups: 1. Other Cook Inlet (OCI); 2. Susitna; 3. Kenai; and 4. Kasilof. The Addendum to FMS 16-10 was made public in September 2017. In the Addendum to FMS 16-10, the regional (Cook Inlet) group was further defined, refined and reported as belonging to one of these four subregional groups. Tables 1-10 in the Addendum report the assignment of the Cook Inlet regional sockeye salmon stocks into the 4 subregional reporting groups. Also, in the Addendum to FMS 16-10, the original six (6) reporting groups have been expanded, refined and are now listed in Tables 1-9 as 19 reporting groups. In the Addendum to FMS 16-10, there are 19 reporting groups: three (3) original regional groups and sixteen (16) newly described subregional reporting groups. Among these newly described and listed reporting groups are the "Unknown." These "Unknown" are also listed as "Unsampled Areas." It is some of these sockeyes that, on a mathematical basis, will be assigned to one the four Cook Inlet subregional groups in the adjustments for Cook Inlet Reporting Groups.

* UCIDA suggests using non-capitalized letters, noting difference from the Magnuson Stevens Act (MSA).

In both the FMS 16-10 and the Addendum to FMS 16-10, all genetic msa are estimates, even though in both reports, both regional and subregional harvest numbers are often estimated to the single digit (sockeye). In the Addendum to FMS 16-10, on Tables 1-9 there are two notes: the first to Stock Specific and second to Results for Cook Inlet. Both of the notes alert the reader that the median number of sockeyes is biased low and that the value of sockeye in any strata below a 5% contribution are not reported in Tables 1-9. An asterisk (*) is shown rather than the numerical value. The 5% cut-off screening was reflected only in the 4 Cook Inlet subregional groups.

Tables 1A through 9A show the Cook Inlet subregional reporting group totals. There is a corresponding decrease in the “Unknown (Unsampled)” as some of these sockeyes were assigned to one of the four Cook Inlet subregional groups.

Table 1A (Adjusted for Cook Inlet). Kodiak Management Area, 2014, early temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket information by area. See Appendix A1, A13, A25 and A37 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	0	0	2,479	1,292	2,066	5,273	11,403	11,403
Black Lake	0	0	0	1	146	1,348	3,486	5,250	5,250
Chignik Lake	0	0	0	0	0	0	977	1,168	1,168
Upper Station / Akalura	0	0	0	4,539	1,622	1,523	524	8,472	8,472
Ayakulik / Frazer	0	0	0	116,247	19,980	18,819	12,571	167,723	167,723
Karluk	0	0	0	16,588	26,303	31,477	16,000	90,526	90,526
Uganik	0	0	0	768	816	18,449	12,073	32,444	32,444
Northwest Kodiak	0	0	0	0	363	6,027	4,121	10,855	10,855
Afognak	0	0	0	0	313	936	3,869	5,301	5,301
Eastside Kodiak	0	0	0	348	425	0	0	1,353	1,353
Saltery	0	0	0	2,897	830	16,457	17,565	37,982	37,982
Other Cook Inlet (OCI)	0	0	0	1,223	*	*	*	2,784	3,740
Susitna	0	0	0	0	*	*	*	2	3
Kenai	0	0	0	1,601	*	*	*	2,056	2,762
Kasilof	0	0	0	8,228	*	*	*	10,854	14,583
PWS	0	0	0	3,866	881	2,009	1,065	8,095	8,095
South of Cape Suckling	0	0	0	1,625	49	1	0	2,105	2,105
Unknown (Unsampled)	137,712	0	0	0	0	0	0	137,712	132,320
Actual	137,712	0	0	160,410	53,020	99,112	77,524	536,085	536,085
Total by Sampling Area	137,712	0	0	162,984	56,018	102,346	79,494	538,554	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

Table 2A (Adjusted for Cook Inlet). Kodiak Management Area, 2014, middle temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket information by area. See Appendix A1, A13, A25 and A37 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	0	139	7,202	4	0	0	8,461	8,461
Black Lake	0	0	0	0	0	0	1,137	1,450	1,450
Chignik Lake	0	0	1,217	0	2,244	1,138	3,085	8,076	8,076
Upper Station / Akalura	0	0	5,383	3,428	0	0	0	9,641	9,641
Ayakulik / Frazer	0	0	65,573	90,666	17,635	6,804	4,331	185,249	185,249
Karluk	0	0	0	1,725	25,856	12,800	11,895	53,027	53,027
Uganik	0	0	2	0	3,665	2,305	8,208	14,736	14,736
Northwest Kodiak	0	0	0	0	115	0	0	538	538
Afognak	0	0	0	0	0	256	927	1,600	1,600
Eastside Kodiak	0	0	2,579	4,617	220	198	0	8,320	8,320
Saltery	0	0	935	22,990	13,690	90,992	88,284	217,070	217,070
Other Cook Inlet (OCI)	0	0	4,239	2,775	*	0	*	7,976	15,398
Susitna	0	0	1,194	1,173	*	1,081	*	4,214	8,136
Kenai	0	0	18,640	29,413	*	2,866	*	51,541	99,505
Kasilof	0	0	12,932	6,987	*	2,840	*	24,990	48,246
PWS	0	0	768	958	1,096	2,689	7,839	14,102	14,102
South of Cape Suckling	0	0	10	0	0	0	0	612	612
Unknown (Unsampled)	569,159	0	0	0	0	0	0	569,159	486,595
Actual	569,159	0	113,611	171,934	64,525	123,969	125,706	1,180,762	1,180,762
Total by Sampling Area	569,159	0	115,998	175,205	68,438	126,840	128,836	1,184,476	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

The 2014 totals by Shedd, et al., and UCIDA, 2017 for all three time stratum are shown in Tables 11 and 11A, see page 13.

Table 3A (Adjusted for Cook Inlet). Kodiak Management Area, 2014, late temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket information by area. See Appendix A3, A15, A27, A39, and A50 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	0	0	423	0	0	0	484	484
Black Lake	0	0	0	0	0	0	0	0	0
Chignik Lake	0	0	19	401	334	0	1,103	2,029	2,029
Upper Station / Akalura	0	0	3,449	12,307	11,887	11,664	7,194	46,775	46,775
Ayakulik / Frazer	0	0	1,366	29,735	7,688	3,581	0	43,013	43,013
Karluk	0	0	0	7,239	100,168	111,318	131,408	349,984	349,984
Uganik	0	0	0	0	0	13	0	254	254
Northwest Kodiak	0	0	0	0	0	0	0	2	2
Afognak	0	0	0	0	0	0	0	0	0
Eastside Kodiak	0	0	203	398	0	393	0	1,180	1,180
Saltery	0	0	0	2,403	3,591	25,780	18,364	50,307	50,307
Other Cook Inlet (OCI)	0	0	0	548	*	*	*	752	1,128
Susitna	0	0	0	0	*	*	*	24	36
Kenai	0	0	268	2,270	*	*	*	7,171	10,758
Kasilof	0	0	0	0	*	*	*	0	0
PWS	0	0	9	95	14	671	143	1,269	1,269
South of Cape Suckling	0	0	62	412	5	170	1,245	2,173	2,173
Unknown (Unsampled)	254,809	0	0	0	0	0	0	254,809	250,833
Actual	254,809	0	5,376	56,231	123,687	153,590	159,457	760,226	760,226
Total by Sampling Area	254,809	2,477	5,437	57,066	124,879	155,658	163,843	764,169	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

Table 4A (Adjusted for Cook Inlet). Kodiak Management Area, 2015, early temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket information by area. See Appendix A5, A17, A29, A41, and A52 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	0	50	0	182	0	63	546	546
Black Lake	0	0	290	3,628	0	2,161	2,806	9,149	9,149
Chignik Lake	0	0	0	0	0	0	0	12	12
Upper Station / Akalura	0	0	1,801	8,193	1,494	0	0	11,609	11,609
Ayakulik / Frazer	0	0	15,333	91,015	12,355	1,879	687	121,361	121,361
Karluk	0	0	110	19,035	15,885	13,736	4,404	53,331	53,331
Uganik	0	0	0	4,314	1,220	9,887	9,681	25,330	25,330
Northwest Kodiak	0	0	0	0	1,232	3,002	3,080	7,822	7,822
Afognak	0	0	242	1,064	687	962	3,446	6,617	6,617
Eastside Kodiak	0	0	429	0	0	0	0	677	677
Saltery	0	0	93	0	0	1,985	2,611	4,805	4,805
Other Cook Inlet (OCI)	0	0	1,970	8,289	*	5,490	1,327	17,240	25,864
Susitna	0	0	0	0	*	0	0	0	0
Kenai	0	0	858	9,964	*	1,269	232	12,500	18,753
Kasilof	0	0	4,809	38,593	*	163	947	46,174	69,273
PWS	0	0	2,068	16,111	1,271	6,565	1,725	27,747	27,747
South of Cape Suckling	0	0	0	0	0	0	0	134	134
Unknown (Unsampled)	119,569	0	0	0	0	0	0	119,569	81,593
Actual	119,569	0	28,053	200,206	34,326	47,099	31,009	464,623	464,623
Total by Sampling Area	119,569	0	28,723	203,170	35,183	49,515	31,607	467,767	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

Table 5A (Adjusted for Cook Inlet). Kodiak Management Area, 2015, middle temporal stratum. Median estimates of stock-specific h
sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket
information by area. See Appendix A6, A18, A30, A42, A53 and A60 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	93	0	0	0	0	0	122	122
Black Lake	0	727	0	0	0	293	2	1,364	1,364
Chignik Lake	0	1,324	0	0	0	0	8,725	10,193	10,193
Upper Station / Akalura	0	0	0	0	0	0	0	36	36
Ayakulik / Frazer	0	0	28,542	156,626	2,394	7	2,974	191,277	191,277
Karluk	0	152	0	17,586	14,921	11,758	19,845	64,814	64,814
Uganik	0	54	0	0	0	4,822	9,812	15,550	15,550
Northwest Kodiak	0	74	0	0	1	0	871	1,246	1,246
Afognak	0	0	0	0	495	0	2	604	604
Eastside Kodiak	0	0	5,691	1,991	299	0	0	8,387	8,387
Saltery	0	119	810	18,453	1,921	52,377	121,181	195,662	195,662
Other Cook Inlet (OCI)	0	1,268	7,796	28,391	1,815	12,925	4,493	57,626	86,730
Susitna	0	220	14,845	14,172	1,707	16,184	11,840	59,809	90,015
Kenai	0	1,560	100,790	103,596	3,725	56,413	15,510	282,000	424,423
Kasilof	0	489	3,438	37,658	1,369	7,798	5,099	56,450	84,960
PWS	0	384	1,857	1,056	846	7,874	11,886	24,953	24,953
South of Cape Suckling	0	0	0	0	0	520	0	676	676
Unknown (Unsampled)	493,152	0	0	0	0	0	0	493,152	262,909
Actual	493,152	6,464	163,769	379,529	29,493	170,971	212,240	1,463,921	1,463,921
Total by Sampling Area	493,152	6,595	165,894	384,390	29,915	174,009	215,645	1,469,600	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

The 2016 totals by Shedd, et al., and UCIDA, 2017 for all three time stratum are shown in Tables 11 and 11A, see page 13.

Table 6A (Adjusted for Cook Inlet). Kodiak Management Area, 2015, late temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket information by area. See Appendix A7, A19, A31, A43, and A54 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	0	0	40	0	0	0	49	49
Black Lake	0	0	0	0	0	0	0	0	0
Chignik Lake	0	0	0	0	0	0	2,382	2,418	2,418
Upper Station / Akalura	0	0	10,719	3,271	2,498	0	919	17,591	17,591
Ayakulik / Frazer	0	0	11,648	5,105	162	0	0	17,150	17,150
Karluk	0	0	0	5,030	50,056	47,994	30,477	133,679	133,679
Uganik	0	0	0	38	0	294	4,338	5,343	5,343
Northwest Kodiak	0	0	0	41	0	0	0	84	84
Afognak	0	0	0	0	0	0	0	9	9
Eastside Kodiak	0	0	5,127	352	0	0	304	5,989	5,989
Saltery	0	0	2,214	4,475	3,821	36,573	49,391	96,587	96,587
Other Cook Inlet (OCI)	0	0	*	116	412	1,253	3,308	5,465	10,195
Susitna	0	0	*	1	1,101	8,896	5,713	16,009	29,864
Kenai	0	0	*	1,542	4,038	29,461	34,796	70,645	131,783
Kasilof	0	0	*	0	0	0	414	571	1,065
PWS	0	0	160	232	66	0	7,673	8,698	8,698
South of Cape Suckling	0	0	0	0	517	0	1,578	2,622	2,622
Unknown (Unsampled)	334,654	0	0	0	0	0	0	334,654	254,437
Actual	334,654	0	29,868	20,243	62,671	124,471	141,293	717,563	717,563
Total by Sampling Area	334,654	1,552	31,294	20,619	63,532	126,126	143,567	721,344	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

Table 7A (Adjusted for Cook Inlet). Kodiak Management Area, 2016, early temporal stratum. Median estimates of stock-specific har
sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket information by area. See Appendix A9, A21, A33, A45, A56, and A62 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	11,843	0	0	414	0	0	12,375	12,375
Black Lake	0	109,455	231	0	0	0	321	110,161	110,161
Chignik Lake	0	4,762	0	0	170	0	0	4,955	4,955
Upper Station / Akalura	0	13	1,548	0	674	0	0	2,459	2,459
Ayakulik / Frazer	0	4,166	6,022	3,859	3,073	1,698	1,349	20,301	20,301
Karluk	0	7,224	0	28	7,760	7,057	5,027	27,308	27,308
Uganik	0	1,565	244	7	778	19,102	43,092	64,998	64,998
Northwest Kodiak	0	5	0	0	58	88	2,066	2,632	2,632
Afognak	0	0	56	0	58	649	1,782	2,664	2,664
Eastside Kodiak	0	0	265	0	0	0	35	484	484
Saltery	0	0	0	0	0	1,609	2,424	4,147	4,147
Other Cook Inlet (OCI)	0	2,079	1,151	*	*	2,509	2,957	8,855	11,477
Susitna	0	0	2	*	*	0	0	20	26
Kenai	0	301	773	*	*	0	322	1,550	2,009
Kasilof	0	6,542	627	*	*	726	1,052	9,080	11,769
PWS	0	3,307	0	0	363	3,372	1,195	8,548	8,548
South of Cape Suckling	0	4	0	0	277	0	0	461	461
Unknown (Unsampled)	83,870	0	0	0	0	0	0	83,870	78,094
Actual	83,870	151,266	10,919	3,894	13,625	36,810	61,622	364,868	364,868
Total by Sampling Area	83,870	154,318	11,118	3,937	13,856	37,238	62,771	367,108	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

Table 8A (Adjusted for Cook Inlet). Kodiak Management Area, 2016, middle temporal stratum. Median estimates of stock-specific h sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket information by area. See Appendix A10, A22, A34, A46, A57, and A63 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	0	0	0	0	0	0	52	52
Black Lake	0	440	1,172	0	0	0	0	1,802	1,802
Chignik Lake	0	9,300	0	0	0	0	0	10,137	10,137
Upper Station / Akalura	0	0	1,761	1,083	132	0	0	3,206	3,206
Ayakulik / Frazer	0	1,008	15,768	56,389	1,826	2,767	0	78,019	78,019
Karluk	0	0	0	4,487	3,455	5,442	13,192	27,061	27,061
Uganik	0	0	0	1,611	745	6,835	20,508	29,991	29,991
Northwest Kodiak	0	0	0	0	0	4	265	805	805
Afognak	0	0	0	242	109	0	1,912	2,406	2,406
Eastside Kodiak	0	0	789	252	100	0	0	1,448	1,448
Saltery	0	0	0	1,912	1,740	40,571	64,073	108,507	108,507
Other Cook Inlet (OCI)	0	20,696	1,839	3,507	154	767	7,512	35,065	60,777
Susitna	0	9,174	3,406	7,055	311	2,625	7,738	30,640	53,107
Kenai	0	131,637	34,067	36,642	306	6,465	18,257	227,515	394,342
Kasilof	0	3,087	1,588	3,005	341	1,140	2,119	11,774	20,407
PWS	0	0	294	0	1,322	1,854	94	4,992	4,992
South of Cape Suckling	0	0	0	317	0	0	0	1,471	1,471
Unknown (Unsampled)	423,895	0	0	0	0	0	0	423,895	200,255
Actual	423,895	175,342	60,684	116,502	10,541	68,470	135,670	998,786	998,786
Total by Sampling Area	423,895	177,315	61,930	120,068	10,700	69,803	138,281	1,001,992	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

The 2016 totals by Shedd, et al., and UCIDA, 2017 for all three time stratum are shown in Tables 11 and 11A, see page 13.

Table 9A (Adjusted for Cook Inlet). Kodiak Management Area, 2016, late temporal stratum. Median estimates of stock-specific harvest by sampling area for all subregional groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based of fish ticket information by area. See Appendix A11, A23, A35, A47, and A58 for additional stock composition and stock-specific harvest statistics.

Reporting Group	Unsampled Areas	Igvak	Alitak	Ayaklulik Halibut Bay	Karluk Sturgeon	Uyak	Uganik Kupreanof	Total by Reporting Group	Total UCI Adjusted
West of Chignik	0	0	0	0	0	0	0	110	110
Black Lake	0	0	0	0	0	0	0	0	0
Chignik Lake	0	0	0	0	0	0	0	0	0
Upper Station / Akalura	0	0	13,918	2,976	2,976	1,890	0	21,920	21,920
Ayakulik / Frazer	0	0	2,777	2,027	42	2,667	0	7,831	7,831
Karluk	0	0	936	15,965	103,210	79,005	75,234	274,309	274,309
Uganik	0	0	0	0	0	0	586	751	751
Northwest Kodiak	0	0	0	0	213	0	0	235	235
Afognak	0	0	0	120	0	0	0	131	131
Eastside Kodiak	0	0	185	153	0	0	0	494	494
Saltery	0	0	1,681	1,780	2,904	29,558	26,032	63,176	63,176
Other Cook Inlet (OCI)	0	0	114	1,196	*	298	3,343	5,262	7,078
Susitna	0	0	62	470	*	2,334	5,318	8,505	11,440
Kenai	0	0	1,178	6,918	*	8,874	24,262	42,846	57,634
Kasilof	0	0	54	914	*	0	159	1,352	1,819
PWS	0	0	42	383	125	0	727	1,928	1,928
South of Cape Suckling	0	0	0	191	302	804	1,050	2,625	2,625
Unknown (Umsampled)	153,272	0	0	0	0	0	0	153,272	133,266
Actual	153,272	0	20,947	33,093	109,772	125,430	136,711	584,747	584,747
Total by Sampling Area	153,272	9,228	21,243	33,721	113,445	126,837	139,612	597,358	

Note: Stock-specific harvest estimates may not sum to the total harvest because summed medians are biased low.

Note: Results for Cook Inlet subregional reporting groups are only reported if the overall contribution to the Cook Inlet group in the stratum or any contributing strata is greater than 5%.

Note: Actual figures calculated by UCIDA are shown in gray rows and columns

Table 10A shows the original and the adjusted harvest estimates by year for the four Cook Inlet subregional groups.

Table 10A (Adjusted for Cook Inlet). Kodiak Management Area, 2014-2016. Median estimates of stock-specific harvest by year across all sampling areas for all subregional reporting groups. Numbers for Unknown (reporting group) and for Total by Year are estimates based on fish ticket information. See Appendices A65-67 for additional stock composition and stock-specific harvest statistics for these years.

Reporting Group	2014	2014	2015	2015	2016	2016
West of Chignik	20,559	20,559	873	873	13,398	13,398
Black Lake	7,016	7,016	10,848	10,848	112,103	112,103
Chignik Lake	11,579	11,579	13,014	13,014	15,267	15,267
Upper Station / Akalura	65,196	65,196	29,702	29,702	27,924	27,924
Ayakulik / Frazer	396,083	396,083	329,848	329,848	106,364	106,364
Karluk	493,692	493,692	252,170	252,170	328,862	328,862
Uganik	47,797	47,797	46,650	46,650	96,205	96,205
Northwest Kodiak	11,895	11,895	9,569	9,569	3,938	3,938
Afognak	7,057	7,057	7,648	7,648	5,330	5,330
Eastside Kodiak	11,300	11,300	15,339	15,339	2,988	2,988
Saltery	305,476	305,476	297,204	297,204	175,968	175,968
Other Cook Inlet (OCI)	11,908	20,266	80,698	117,683	49,536	79,332
Susitna	4,466	8,175	75,989	105,726	39,440	64,573
Kenai	60,973	113,025	365,335	513,013	272,160	453,985
Kasilof	36,019	62,829	103,539	154,647	22,501	33,995
PWS	23,716	23,716	61,815	61,815	15,986	15,986
South of Cape Suckling	5,656	5,656	4,500	4,500	4,949	4,949
Unknown (Unsampled)	1,738,649	1,647,720	1,392,603	1,127,095	770,647	522,399
Total by Year	3,259,037	3,259,037	3,097,344	3,097,344	2,063,566	2,063,566

Note: Stock-specific harvest estimates may not sum to total harvest because summed medians are biased low.

Tables 11 and 11A separate out the 4 subregional Cook Inlet stocks that were estimated to have been harvested in the KMA. These harvest estimates are by year, combining all three temporal strata.

Table 11. Kodiak Management Area 2014-2016. Estimated Cook Inlet Harvests					
Reporting Group	2014	2015	2016	Total	Average
Other Cook Inlet (OCI)	11,908	80,698	49,536	142,142	47,381
Susitna	4,466	75,989	39,440	119,895	39,965
Kenai	60,973	365,335	272,160	698,468	232,823
Kasilof	36,019	103,539	22,501	162,059	54,020
Total	113,366	625,561	383,637	1,122,564	374,188
* All data taken from FMS 16-10, Shedd, et al., 2016					

Table 11A (Adjusted for Cook Inlet). Kodiak Management Area 2014-2016. Estimated Cook Inlet Harvests					
Reporting Group	2014	2015	2016	Total	Average
Other Cook Inlet (OCI)	20,266	117,683	79,332	217,281	72,427
Susitna	8,175	105,726	64,573	178,474	59,491
Kenai	113,025	513,013	453,985	1,080,023	360,008
Kasilof	62,829	154,647	33,995	251,471	83,824
Total	204,295	891,069	631,885	1,727,249	575,750
* All data taken from UCIDA, 2017					

As can be seen, when Tables 11 and 11A are compared, the estimate of Cook Inlet sockeye harvested in KMA increases. In some years, this adjusted harvests are small (2014 Sustina 4,466 as adjusted is now 8,175. A harvest adjustment of 3,709 additional harvests.) These 3,709 additional sockeye harvests came from the “Unknowns.” The largest subregional adjustments come from 2016: Kenai sockeyes are adjusted from 272,160 up to 453,985, an increased harvest adjustment of 181,825 sockeyes in the KMA.

12A (Adjusted for Cook Inlet). Commercial Harvest of Upper Cook Inlet Sockeye Salmon Stocks 2014-2016					
2014	**UCI Harvest**	**KMA % of UCI Harvest**	**KMA Harvest**	**KMA % of Total Harvest**	**Total Harvest**
UCI OCI	262,505	7.72%	20,266	7.17%	282,711
Susitna	123,768	6.61%	8,175	6.20%	131,943
Kenai	1,406,865	8.03%	113,025	7.44%	1,519,890
Kasilof	327,136	19.21%	62,829	16.11%	389,965
2014 Totals	2,120,274		204,295		2,324,509
2015					
UCI OCI	225,084	52.28%	117,683	34.33%	342,767
Susitna	200,251	52.80%	105,726	34.55%	305,977
Kenai	1,657,183	30.96%	513,013	23.64%	2,170,196
Kasilof	427,733	36.16%	154,647	26.55%	582,380
2015 Totals	2,510,251		891,069		3,401,320
2016					
UCI OCI	138,975	57.08%	79,332	24.92%	318,307
Susitna	124,257	51.97%	64,573	34.20%	188,830
Kenai	1,970,523	23.04%	453,985	18.72%	2,424,508
Kasilof	146,512	23.20%	33,995	18.83%	180,507
2016 Totals	2,380,267		631,885		3,112,152
Grand Totals 2014-2016	**7,010,792**		**1,727,249**		**8,837,981**

Discussion

There are two ways of calculating percent of harvest. In Table 12, first, the KMA harvests are calculated as a percent of total UCI harvest; second, the KMA harvests are calculated as a percent of the total KMA harvests. When this is done, the significance of the KMA harvests, both in UCI and KMA emerge. For example, in 2015 the KMA harvests of Susitna sockeyes was 52.8% of the total UCI harvests. In Kodiak, the Susitna sockeyes were 34.55% of the total 2015 and 2016 KMA harvest. The point being the harvests of one or all four of the Cook Inlet subregional reporting groups have vastly different significances depending on what area is used as a basis for calculating percentages.

Table 11A has newly constructed estimates for the adjusted sockeye harvests in the 4 Cook Inlet subregional reporting groups for 2014-2016. Table 11A also estimates the 2014-2016 total sockeye harvests in KMA for the 4 Cook Inlet subregions. Lastly, Table 11A provides an estimated harvest of 1,727,249 for these Cook Inlet subregional reporting groups for the 2014-2016 time period.

An estimated harvest of 1,727,000, Cook Inlet sockeye salmon at $8.00 per fish equates to approximately $14,000,000 over the 2014-2016 time period. This 1.727 million KMA sockeye harvests do not include the Chinook, coho, chum or pink KMA harvests that are natal to Cook Inlet.

Wallace Fields
PO Box 1691
Kodiak, AK 99615

October 2, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
P.O. Box 115526
Juneau, AK 99811-5526

RE: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

Dear Chairman Jensen and Alaska Board of Fisheries members,

I oppose United Cook Inlet Drift Association's Agenda Change Request 11 to adopt a new management plan capping weekly and seasonal commercial sockeye salmon harvest in portions of the Kodiak Management Area. This request does not meet the Board's agenda change request criteria. No new information has been presented by the KMA genetic stock composition study that "corrects an effect on the fishery that was unforeseen when the regulation was adopted." There is no error in regulation that needs correcting nor does Cook Inlet sockeye caught in the KMA create a conservation concern or have a conservation purpose or reason.

For the past 57 years my family has fished salmon in the Kodiak area. We have grown up and raised our families at our setnet locations in Uyak Bay on the West side of Kodiak Island. I have also been a year round commercial fisherman for the past 35 years. The time period identified in ACR 11, June 23 – July 31, is an important time for our family and has been an integral part of our fishing operation. Restricting our fishing during these weeks would be devastating to our overall fishing operation.

The Genetic Stock Composition study was not designed to answer the questions now being raised, and neglected to include much of the necessary information to answer these questions. The natural variability of Kodiak's sockeye runs, or Cook Inlet's, were not addressed. Very unusual weather patterns are not accounted for, nor were the exceptional migration patterns that characterize the years the study was done. The foregone fish that will result from this change in management plan, lost opportunity on Kodiak Regional Aquaculture Association enhanced projects, reallocation of fishing opportunity between gear groups, and over escapement that will result are not addressed by this ACR. Along with a host of other ramifications that need careful consideration, this proposal does not address the economic impact on Kodiak's salmon fishing families, salmon processors and workers, and Kodiak's communities – especially Kodiak villages and small businesses.

The Kodiak's commercial salmon fishery dates to 1883 when the first cannery was established at Karluk. Our fish are processed at a local cannery in Larsen Bay that was built in 1910, and has operated almost continually since then. Since limited entry in the 1970's, little has changed in our fishery. Most of the families that setnet in Uyak Bay have been here since the 1960's or 1970's. Some of the sites we fish have been fished continuously since 1929; others since the 1940's and 1950's.

In 1889 Captain Jefferson Moser reported to congress in his *Report of the Operations of the US Fish Commission Steamer Albatross for the Year ending June 30, 1898* that Cook Inlet sockeye were being caught off of Karluk during the 1898 season. It would be wrong for the Board of Fisheries to restrict this historical fishery to benefit another user group with "common property" sockeye salmon.

The Genetic Stock Composition study does not present any new information and is misleading. UCIDA's request for an agenda change does not meet the Board of Fisheries Agenda Change Request criteria. Please reject this agenda change request.

Sincerely,

Wallace Fields

Wallace Fields

William and Kaytlen Roth
F/V Sea Chantey
PO Box 3171
Homer, Alaska 99603

September 29, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
P.D. Box 115526
Juneau, AK 99811-5526

Re: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

Chairman Jensen,

We appreciate the ability to comment on ACR-11. We oppose this proposed agenda change because it does not meet the Board's agenda change request criteria. The Kodiak Management Area genetic stock composition study does not present new information correcting an effect on a fishery that was unforeseen when the management plan or regulation was adopted, nor does Cook Inlet sockeye caught in Kodiak present a conservation concern or have conservation purpose or reason. In fact, it could have damaging conservation effects on Kodiak salmon runs.

I am a second generation salmon seiner that has just completed my third year with my own vessel in Kodiak. I have recently invested a great deal into my fishing business as a young and beginning fisherman and the thought of not being able to fish for

a large portion of the Kodiak salmon season is very concerning to me and my new wife. We employ at least three crew members every year, and do all of our boat work on the Kenai Peninsula using local marine trades and supply stores. The Kodiak salmon fishery is my main source of income. I have fished my entire salmon career mostly on the West Side of Kodiak. Our livelihood and that of our crew depends on the availability of West Side fishing grounds as that is where my fishing knowledge and expertise lie and is also where our Processor, Icicle Seafoods, is located.

This agenda change request does not address variability in either Kodiak or Cook Inlet sockeye runs. It could also be harmful to local stocks. Neglecting harvest of local Kodiak sockeye runs will cause over-escapement, fleet movement and proposed closures would reallocate catch between seiners and gillnetters and local Pink and Dog harvest being limited to inner bays will result in lower quality of catch for Processors and potentially lower salmon prices for Kodiak fishermen in general. Also important to consider is that many set gillnetters with fish camps near capes - that have been established for generations - do not have the flexibility to move to inner bays and it would present a undue burden on their multi-generational family fishing operations.

This proposal sets an awful precedent, disrupting one area's fishery to only *possibly* provide gains in another management area. We appreciate the responsible and sustainable management by Alaska Department of Fish and Game biologists in Kodiak who have maintaining the future of salmon stocks in mind. We can empathize with the frustrations of our northern neighbors in Cook Inlet, both commercial and recreational fishermen, who have experienced less than satisfactory management of their area. However, salmon are considered common property and do not belong to the management area where they are born and we do not see placing the burden of resolving Cook Inlet management concerns on the Kodiak Management Area as the

answer to their problems. We would not wish, nor expect, such a burden placed on our neighbors and ask that this burden no placed on us.

This proposal does not take into consideration the economic costs to Kodiak salmon fishing families, Processors, processing workers, or Alaskan coastal communities that benefit from the income of Kodiak salmon fishermen. The proposal does not meet Board of Fish criteria for presenting new information that has unforeseen conservation effects on a fishery and would have immense negative economic and conservation impacts. I hope that the Board sees that there is no error in the current regulation that needs correcting.

With respect and hope for the future fishing families,

William and Kaytlen Roth
F/V Sea Chantey

United Fishermen's Marketing Association
PO Box 1035, Kodiak, AK 99615
email: <jeff.stephan@me.com>; telephone: 907-350-2088
October 3, 2017

Mr. John Jensen, Chair
Alaska Board of Fisheries
P.O. Box 115526
Juneau, AK 99811-5526
Sent to <dfg.bof.comments@alaska.gov>

Re: 1) UCIDA Agenda Change Request 11; 2) Kodiak Area Red Salmon Management; 3) Kodiak Salmon Genetic Research

Dear Chairman Jensen & Members of the Alaska Board of Fisheries,

I respectfully submit the following testimony on behalf of the United Fishermen's Marketing Association with respect to UCIDA ACR 11, and other issues that are included on the agenda for the Alaska Board of Fisheries Work Session that is scheduled during October 17 - 19, 2017.

As part of our written testimony to the Alaska Board of Fisheries on the above-indicated topics, I herewith include a Report from Natural Resources Consultants, Inc. (March 10, 1994) entitled "Harvest Rates of Upper Cook Inlet-Bound Sockeye Salmon In The Kodiak Management Area's Commercial Salmon Fishery", hereafter referred to as the "NRC Report" (G. T. Ruggerone: Natural Resources Consultants, Inc., and D.E. Rogers: University of Washington, for The Kodiak Island Borough Salmon Working Group).

The following quote from the "Summary" provides a general sense of the focus of attention and content of the NRC Report: "Beginning in 1988, fishermen from Upper Cook Inlet (UCI) became concerned over the possible increase of UCI sockeye salmon harvested by Kodiak fishermen during July. This concern has led to a proposal by UCI fishermen (Kenai Peninsula Fishermen's Association, KPFA) that would restrict fishing activities in the Kodiak Management Area (KMA) during July. This proposal, if accepted, would likely reduce harvests of non-local salmon, but would also alter fishing patterns for local salmon … … … In addition to distribution and migration patterns, the abundance of sockeye salmon from areas throughout Alaska will greatly influence numbers of non-local sockeye salmon intercepted by fisheries targeting on local stocks. Sockeye harvest in western and central Alaska have been exceptionally high since 1978 and have included record harvests in recent. Both Kodiak and Upper Cook Inlet have enjoyed relatively large harvests of sockeye salmon in recent years. Given the large runs to UCI, one would expect catches of UCI sockeye to increase in KMA's commercial salmon fishery."

We respectfully request that you

1. Reject UCIDA Agenda Change Request 11 in its entirety during your consideration of Work Session Agenda Item 14 [Agenda Change Requests (ACRs)]. ACR 11 clearly does

not meet the Board's agenda change request criteria. The Kodiak Management Area genetic stock composition study does not present any "new information" that "corrects an effect on the fishery that was unforeseen when the regulation (management plan) was adopted." Cook Inlet sockeye caught in the Kodiak does not create a conservation concern or have a conservation purpose or reason. There is no error in regulation that needs correcting.

2. Do not carry over a consideration of any aspect of ACR 11 to your Agenda Item 16 ("ACRs continued and miscellaneous business, if any"), Agenda Item 17 ("Kodiak Salmon Genetic Research"), or Agenda Item 18 ("Policy for the management of sustainable salmon fisheries overview").

3. Do not schedule a consideration of Kodiak Area Salmon management out-of-cycle; that is, we request that you address the Kodiak Area Salmon fishery as originally planned during the Board's 2019/2020 Cycle.

The management principles that are represented in ACR 11 would unnecessarily cause significant and unwarranted complications to the management and conduct of the Kodiak Area salmon fishery. It is likely that key Kodiak systems would face a higher risk of overescapement (even underescapement) and other stress factors. The quality of Kodiak salmon would be compromised. The existing reasonable and efficient coexistence between Kodiak seine fishermen and setnet fishermen that has evolved over the past 40 years or more would surely be significantly and unnecessarily damaged. Board meetings that addressed the Kodiak salmon fishery would become ever-more contentious, and have to address ever-more conservation and user-conflict issues because of the nature of the management requirements that would result from implementation of an ACR 11-directed management regime. Future Boards and ADF&G Headquarters and Kodiak Area management staffs would be required to unnecessarily spend precious resources dealing with new conservation and user-conflict issues that would otherwise not arise.

Ongoing changes in the climate will continue to cause uncertainty with respect to timing of runs, ocean temperatures, ocean current patterns, and other environmental variables that impact migratory patterns and timing of Cook Inlet, Kodiak and other salmon. ACR 11, or any similar regulatory model, will certainly not address the underlying natural factors that influence salmon migratory patterns and timing. An ACR 11-driven regulatory regime will result in an unnecessary and inefficient redistribution of fishing effort, cause gear and allocation conflicts between seiners and set netters, and create management complexities that are unnecessary and unproductive.

Thank you for the opportunity to provide our comments.

Sincerely,

Jeffrey R. Stephan

HARVEST RATES OF UPPER COOK INLET-BOUND SOCKEYE SALMON IN THE KODIAK MANAGEMENT AREA'S COMMERCIAL SALMON FISHERY

PREPARED FOR:

THE KODIAK ISLAND BOROUGH
SALMON WORKING GROUP

March 10, 1994

PREPARED BY:
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Reviewers: DLH

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HARVEST RATES OF UPPER COOK INLET-BOUND SOCKEYE SALMON IN THE KODIAK MANAGEMENT AREA'S COMMERCIAL SALMON FISHERY

by:

G. T. Ruggerone and D.E. Rogers[1]

for

The Kodiak Island Borough Salmon Working Group

10 March 1994

[1]G. T. Ruggerone: Natural Resources Consultants, Inc.
D.E. Rogers: University of Washington

ACKNOWLEDGMENTS

We wish to thank the ADF&G biologists in the Kodiak Region for their generous and timely cooperation. We recognize that the ADF&G biologists were diligently preparing numerous reports on the issue involving harvests of UCI-bound sockeye in the Kodiak Management Area, while making historical reports and data available to us.

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LIST OF EXHIBITS

SUMMARY

Beginning in 1988, fishermen from Upper Cook Inlet (UCI) became concerned over the possible increase of UCI sockeye salmon harvested by Kodiak fishermen during July. This concern has led to a proposal by UCI fishermen (Kenai Peninsula Fishermen's Association, KPFA) that would restrict fishing activities in the Kodiak Management Area (KMA) during July. This proposal, if accepted, would likely reduce harvests of non-local salmon, but would also alter fishing patterns for local salmon.

Runs of local Kodiak stocks and UCI stocks have both increased substantially in recent years. Because the KMA has always harvested UCI-bound sockeye salmon and because UCI runs have been exceptional in recent years, we would expect numbers of UCI-bound sockeye salmon harvested in the Kodiak fishery to also increase. However, we believe the important issue is whether the Kodiak fishery has been harvesting proportionately more UCI sockeye in recent years compared to sockeye harvests or runs to UCI and Kodiak.

We compared harvest rate indices of Upper Cook Inlet sockeye salmon captured in the Kodiak Management Area during 6-25 July 1970-1987 and 1988-1993, excluding 1989. A variety of analyses were used. Several analyses suggested harvest rates of UCI-bound sockeye in KMA were not greater than expected during 1988-1993, although one type of analysis indicated the harvest rates in 1988 and 1992 were higher than expected.

Analysis of the percentage of sockeye harvested in areas identified in the KPFA proposal for closure during 6-25 July indicated that harvests in these areas have increased primarily in 1992 and, to a lesser extent, in 1988. Fishing patterns in other years were not unusual. The ADF&G management during most of July is focused on KMA pink salmon stocks.

We reviewed ADF&G reports that estimated numbers of UCI sockeye salmon captured in the Kodiak fishery during 6-25 July. In general, we agree with these reports in that harvests of UCI-bound sockeye salmon by

Kodiak fishermen have been relatively great in recent years. This trend is expected because runs of sockeye salmon to UCI have reached record levels in recent years. Potential sources of error associated with the estimation of UCI sockeye harvested in Kodiak are discussed in the following report.

We conclude, based upon our analyses and our review of the ADF&G reports, that harvests of UCI-bound sockeye salmon in the KMA is highly related to the strength of UCI runs. Higher than expected harvests of UCI-bound sockeye salmon are likely to occur only when runs to UCI are exceptionally large.

INTRODUCTION

The Kodiak Management Area (KMA) includes inland and State marine waters surrounding the Kodiak Island archipelago and adjacent to the Alaska Peninsula between Kilokak Rocks and Cape Douglas (Exhibits 1 and 2). The area is managed primarily for local stocks, although the Cape Igvak Section of the Mainland District is managed for Chignik sockeye salmon prior to 26 July and the North Shelikof Strait area (NSS) is managed during 6-25 July to restrict harvests of sockeye salmon returning to Upper Cook Inlet (UCI). The NSS sockeye management plan was established in November 1989 by the Alaska State Board of Fisheries after reviewing concerns by UCI fishermen regarding the harvest of UCI-bound sockeye salmon within the NSS.

During 1993, UCI fishermen proposed to the Board of Fisheries that additional restriction be applied to the management of salmon harvests in the Kodiak Management Area. The UCI proposal requests the following areas be closed to fishing during 6-25 July:

- Halibut Bay Section of the Southwest Kodiak District
- Areas 258-10 and 258-40 of the Sitkalidak Section of the Eastside Kodiak District
- Katmai and Alinchak Bay Sections of the Mainland District

Additionally, UCI fishermen propose the Board restrict fishing time, area, and gear within the KMA during 1-25 July. The purpose of the proposal is to reduce the catch of sockeye salmon bound for UCI in the Kodiak Management Area.

Acceptance of the UCI proposal by the Board would lead to reduced harvests by Kodiak fishermen of all salmon species during 1-25 July. Because acceptance of the UCI proposal would lead to reduced harvests of local and non-local salmon, the Kodiak Island Borough Salmon Work Group contracted Natural Resources Consultants to evaluate the harvests of UCI-bound sockeye salmon during KMA's July salmon fishery.

The objectives of this report were to:

1. review general factors influencing harvests of migrating non-local sockeye salmon
2. examine trends in harvest rate indices of UCI-bound sockeye salmon within the KMA during 6-25 July
3. quantitatively examine factors influencing harvest rates of UCI-bound sockeye salmon
4. review reports by ADF&G biologists that attempt to estimate numbers of UCI sockeye salmon harvested by Kodiak fishermen.

OVERVIEW OF SALMON DISTRIBUTION AND MIGRATION

Sockeye salmon are distributed in the North Pacific Ocean from the Gulf of Alaska to the Aleutian Islands (Exhibits 3 and 4). Salmon actively migrate counterclockwise with the Alaskan Gyre and may travel 2,000 miles in a year (Royce et al. 1968). The distribution center of sockeye stocks from western Alaska tends to be farther west than sockeye stocks from central Alaska, although considerable overlap exists on the high seas among sockeye salmon stocks from all areas of Alaska (French et al. 1976).

The distribution and migration patterns of salmon stocks in the ocean are dynamic. For example, sockeye salmon tend to be further south during winter and farther north during summer (French et al. 1976). Furthermore, during winters of relatively warm ocean temperatures, salmon tend to be farther north (Exhibit 5, Blackbourn 1987). When Alaskan salmon are distributed farther north during warm winters, they tend to return to their native streams at a slightly earlier date.

Ocean temperatures can have a dramatic effect on the migration route of sockeye salmon. For example, sockeye salmon returning to Fraser River, British Columbia, tend to migrate from the north through Johnstone Strait during warm winters when the sockeye are distributed farther north. During relatively cool winters when the fish are farther south, the fish migrate from the west through the Strait of Juan de Fuca (Groot and Quinn 1987). The dynamic nature of salmon migration patterns can have a substantial effect on the fishing patterns of commercial salmon fishermen.

Mechanisms enabling salmon populations to return to their natal streams within a brief, highly predictable time period after individuals begin their journey from areas up to about 2,000 miles apart are not well understood. In the open ocean, salmon may use ocean currents and compass orientation to navigate back to coastal areas (Royce et al. 1968; Quinn 1982). Once salmon reach coastal waters, they may encounter physical obstacles, such as islands and inlets, a variety of odors from many streams, reversing tidal currents, and vertical and horizontal gradients of water temperature and salinity. Mechanisms that may be used by salmon to navigate through

coastal waters include compass orientation, tidal stream transport, and orientation to homestream odors (Ruggerone et al. 1990). Tracking studies of salmon in coastal waters have demonstrated salmon often meander considerable distances from a direct course leading back to their homestream (Quinn et al. 1989; Ruggerone et al. 1990).

The number of non-local sockeye harvested by Kodiak or other fishermen will depend, in part, on the distribution of the non-local salmon stocks. As described above, salmon migration patterns can change from year to year. Given the location of the Kodiak Management Area in the Gulf of Alaska and the widespread distribution of sockeye salmon stocks from western and central Alaska, sockeye stocks from Bristol Bay and Chignik could be harvested by Kodiak fishermen during June in addition to local stocks. In July, sockeye salmon from UCI and Chignik could also be harvested by Kodiak fishermen. Catch of non-local salmon undoubtedly occurs in most salmon fisheries.

The high seas distribution of Kodiak sockeye compared to Cook Inlet sockeye salmon can be described from an international tag/recovery effort during 1956-1970. During this period 4,846 maturing sockeye salmon were tagged on the high seas and recovered in North America. Of these 4,846 sockeye salmon, 142 fish were recovered in the Kodiak Management Area and 243 fish were recovered in Cook Inlet. Exhibit 5 shows the relative distribution of maturing Kodiak and Cook Inlet sockeye salmon tagged during April, May, and June of the year of recapture. These data show maturing Kodiak sockeye salmon tend to be distributed farther west than Cook Inlet sockeye salmon. An estimated 32.5% of the tagged Kodiak sockeye were east of 150°W, whereas 10.3% of the tagged Cook Inlet sockeye salmon were east of 150°W (Exhibit 6).

A tagging study conducted near Unimak Island and the Shumagin Islands, which are approximately 250-400 miles southwest of Kodiak, can provide additional information on the relative abundance of Kodiak and Cook Inlet sockeye in that area during 1987. A total of 23 tagged sockeye were recovered in Kodiak, but only 4 tagged sockeye were recovered in Cook Inlet (Eggers et al. 1991). The recapture rate of sockeye released in the

Shumagin Islands was approximately 8 times greater for Kodiak compared to Cook Inlet sockeye salmon. For sockeye captured and released near Unimak Island, the recapture rate for Kodiak sockeye was approximately two times greater. The tag data from 1987 and data from the high seas tagging studies suggest Kodiak sockeye tend to be more abundant than Cook Inlet sockeye in areas west of Kodiak Island. These data suggest the majority of sockeye returning to UCI migrate through Kennedy and Stevenson Entrances rather than Shelikof Strait in most years.

In addition to distribution and migration patterns, the abundance of sockeye salmon from areas throughout Alaska will greatly influence numbers of non-local sockeye salmon intercepted by fisheries targeting on local stocks. Sockeye harvest in western and central Alaska have been exceptionally high since 1978 and have included record harvests in recent years. Both Kodiak and Upper Cook Inlet have enjoyed relatively large harvests of sockeye salmon in recent years. Given the large runs to UCI, one would expect catches of UCI sockeye to increase in KMA's commercial salmon fishery.

The important question the Board of Fisheries should ask is whether an increase has occurred in the number of UCI sockeye captured in the KMA compared to harvests or runs in Upper Cook Inlet. In other words, has the harvest rate of these non-local salmon been consistently high in recent years? We address this question in the next section.

HARVEST RATES OF UCI-BOUND SOCKEYE SALMON

Harvest data for the following analyses were provided in Brennan et al. (1993) and by K. Brennan (pers. comm., ADF&G, Kodiak) (Exhibit 7). The data included all areas of the KMA except the Cape Igvak Section, managed for the harvest of Chignik sockeye salmon. The year 1989 was excluded from analysis because the *Exxon Valdez* oil spill interfered with fishing activities in Kodiak and Upper Cook Inlet. The dataset allowed comparisons of harvests in the KMA during 6-25 July (i.e., the period when most UCI-bound sockeye migrate through the KMA) and the entire season excluding 6-25 July (i.e., "the period when few UCI-bound sockeye migrate through the KMA). Additional analyses were conducted on harvests of sockeye salmon exceeding 6 lbs, which serve as an index of UCI sockeye abundance during July. The analysis will focus on two time periods: 1970-1987 and 1988-1993. The latter period represents the period when UCI fishermen became concerned about catches of UCI sockeye in the Kodiak fishery.

Harvests of Sockeye Salmon

Sockeye harvests in the KMA have increased substantially during both 6-25 July and during the remaining season since the early 1970s (Exhibit 8). During the 6-25 July period, sockeye harvests averaged 0.2 million during 1970-1987 and 1.4 million during 1988-1993. During the remaining period (mostly June and August), sockeye harvests averaged 0.6 million during 1970-1987 and 2.8 million during 1988-1993. During the entire season, sockeye harvests averaged 0.8 million during 1970-1987 and 4.2 million during
1988-1993.

In the Upper Cook Inlet Management Area, sockeye harvests, on average, increased from 2.4 million during 1970-1987 to 5.2 million salmon during 1988-1993 (Exhibit 8). These data indicate sockeye returning to both the Kodiak and Upper Cook Inlet streams have increased substantially over the

past 20 years. This trend is common to nearly all sockeye systems in Alaska.

If harvest rates of UCI-bound sockeye have increased substantially since 1987, as suggested by the UCI proposal, then the percentage of sockeye taken during 6-25 July compared to the entire season would likely increase during 1988-1993 compared to previous years. As shown in Exhibit 9, the percentage of sockeye taken during the 6-25 July period was similar during 1970-1987 (34%) and 1988-1993 (36%), indicating sockeye harvests during 6-25 July have not increased in recent years relative to harvests for the entire year.

The ratio of sockeye salmon harvested in the KMA compared to UCI should also be relatively high during recent years if the harvest rate of UCI-bound sockeye has increased. The ratio of sockeye taken during the 6-25 July period in the KMA to UCI was higher during 1988-1993 (0.35) than 1970-1986 (0.12) (t-test, df= 20, $p<0.01$) (Exhibit 10) . However, the higher ratios in recent years were due to high ratios during 1990 and 1991 rather than 1988 and 1992, the two years having relatively high catches of UCI sockeye salmon based on ADF&G estimates (Vining and Barrett 1994). Harvest of sockeye salmon in UCI could have been higher in 1987, 1988, 1992, and 1993 because escapement in the Kenai River exceeded the escapement goal. Furthermore, the ratio of sockeye taken during June and August in the KMA compared to UCI was also higher during 1988-1993 (0.76) than 1970-1986 (0.27) (t-test, df= 20, $p<0.01$) (Exhibit 11) , indicating the high ratio in recent years during 6-25 July was related to the large increase in local Kodiak sockeye runs compared to those in UCI.

We attempted to developed a multiple regression model that could predict the harvest of sockeye in the KMA from one or more variables. The independent variables tested included sockeye harvests in the KMA during other periods (mostly June and July), sockeye harvests in UCI, sockeye run size in UCI, pink salmon harvests in the KMA, sockeye salmon harvests of the late run to Chignik Lake, winter sea-surface temperature near Kodiak (November to March), and spring sea-surface temperature (March and April). The regression model was built using data from 1970-1987 so

potential deviation in harvests during recent years (1988-1993) could be examined.

The analysis indicated sockeye catch during 6-25 July was correlated with sockeye catch during June and August ($r = 0.86$), harvests in UCI ($r = 0.65$), and run size to UCI ($r = 0.65$). However, sockeye catch during June and August explained the greatest amount of variability and was the best predictor of sockeye catch during 6-25 July ($r^2 = 0.74$, $df = 18$, $p<0.001$) (Exhibit 12). Sockeye harvests and run sizes in UCI did not add additional information to the single regression model because sockeye catches during June and August were correlated with them. Thus, harvest of all sockeye during 6-25 July was more dependent on harvests or run strength of Kodiak stocks than on run strength of UCI sockeye salmon. No other variables were statistically significant.

Examination of standardized residuals from the regression shows harvests of sockeye during 6-26 July, 1988-1993, were within the range predicted by the model developed from data during 1970-1987, except for harvests during 1988 and 1992 (Exhibit 13). Harvests during 1988 and 1992 were higher than expected based on harvests during June and August. Potential factors explaining this deviation could be strong UCI runs, greater catchability of UCI stocks, or relatively strong returns of Kodiak stocks during July.

Harvests of Sockeye Exceeding 6 lbs

Numbers of sockeye salmon exceeding 6 lbs during 6-25 July can be used as an index of UCI sockeye in the KMA because UCI sockeye tend to be larger than Kodiak sockeye (Vining and Barrett 1994). Brennan et al. (1993) estimated numbers of sockeye >6 lbs by assigning all sockeye from a given fish ticket to this category when the average weight exceeded 6 lbs. Thus, the analysis of fish >6 lbs introduces some error, but the amount of error should be relatively little because the data included nearly all of the KMA for major portions of the season.

During 6-25 July, the number of harvested sockeye >6 lbs was considerably greater during 1988-1993 (avg. 537,000) than during 1970-1987 (avg. 98,000), although year-to-year variability was high in recent years (Exhibit 14). During the remaining season, the number of harvested sockeye >6 lbs averaged approximately 21% less during 1988-1993 (avg. 155,000) than during 1970-1987 (avg. 197,000). This difference was due largely to the great harvest of 6 lb sockeye during the remaining periods (June and August) in 1986. These data suggest that numbers of UCI sockeye harvested in the KMA could be relatively high in recent years. This result was expected, as discussed previously, because runs to UCI have been exceptionally large in recent years.

If harvest rates of UCI-bound sockeye have increased substantially since 1987, then the percentage of sockeye >6 lbs harvested during 6-25 July would likely increase during 1988-1993 compared to previous years. As shown in Exhibit 15, the percentage of sockeye >6 lbs harvested during 6-25 July averaged 26% higher during 1970-1987 than 1988-1993 (44% to 35%). The percentage of sockeye >6 lbs harvested during the entire season declined approximately 51% between 1970-1987 and 1988-1993 (39% to 19%). Although somewhat confounded by the recent decline in the percentage of >6 lb sockeye during the entire season, these data do not suggest an increase in the harvest rate of UCI-bound sockeye salmon.

We developed a multiple regression model that could predict the harvest of >6 lb sockeye in the KMA from one or more variables. The approach was the same as that described above for the prediction of total sockeye catch. The independent variables tested included harvest of 6 lb sockeye in the KMA during other periods (mostly June and July), sockeye harvests in UCI, sockeye run size in UCI, average weight of UCI sockeye, pink salmon harvests in the KMA, sockeye salmon harvests of the late run to Chignik Lake, winter sea-surface temperature near Kodiak (November to March), and spring sea-surface temperature (March and April). The regression model was built using data from 1970-1987 so that potential deviations during recent years could be examined.

The analysis indicated harvests of 6 lb sockeye during 6-25 July was correlated with sockeye harvests in the UCI ($r = 0.81$), sockeye runs in the UCI ($r = 0.80$), harvests of 6 lb sockeye in the KMA during June and August ($r = 0.71$), harvests of all sockeye in the KMA during June and August ($r = 0.52$). The model best explaining harvests of 6 lb sockeye during 6-25 July included harvests in UCI ($p < 0.001$)) and harvests of 6 lb sockeye during June and August ($p < 0.004$) (overall $r^2 = 0.81$, $df = 18$, $p < 0.001$) (Exhibit 12). Thus, harvests of 6 lb sockeye during 6-25 July were dependent on both run strength of UCI stocks and run strength of Kodiak 6 lb sockeye salmon during 1970-1987.

Examination of standardized residuals from the regression shows harvests of 6 lb sockeye during 5-25 July, 1988-1993, were within the range predicted by the model developed from data during 1970-1987, except for harvests during 1988 and 1992 (Exhibit 13). Harvest during 1988 and 1992 were higher than expected based on harvests in UCI and harvests of 6 lb sockeye during June and July. Factors explaining the deviation in 1988 and 1992 could be strong UCI runs relative to harvests (overescapement), greater catchability of UCI stocks, greater harvests of other non-local stocks, and relatively poor returns of large local sockeye during June and August compared to July.

An additional regression model was developed to predict the percentage of 6 lb sockeye harvested during 6-26 July, 1972-1987. The final model included average weight of UCI sockeye ($p < 0.001$), the percentage of 6 lb sockeye during June and July ($p < 0.009$), and sockeye harvest in UCI ($p = 0.030$) ($r^2 = 0.87$, $df = 15$, overall $p < 0.001$). This model had the greatest precision of the three models described here, explaining 87% of the variability. Examination of residuals during 1970-1987 and 1988-1993 does not indicate an abnormally high percentage of 6 lb sockeye harvested in the KMA during 1988-1993 (Exhibit 16). Thus, this model indicates harvests of UCI sockeye salmon by Kodiak fishermen have not been unusually high during recent years.

In summary, runs of local Kodiak stocks and UCI stocks have both increased in recent years. The percentage of sockeye harvested during

6-25 July compared to the entire season has not increased in recent years. The ratios of sockeye harvested in Kodiak compared to UCI during both periods (June and August vs. July) did not indicate unusually high harvest rates of UCI-bound salmon during 6-25 July of recent years. Regression and residual analyses suggested harvests of 6 lb and total sockeye salmon during 6-25 July were greater than expected in 1988 and 1992, based on pre-1988 relationships. However, the percentage of 6 lb sockeye harvested in the Kodiak fishery during 6-25 July has not increased more than expected, based on average weight of UCI sockeye, the percentage of 6 lb sockeye in the Kodiak fishery during June and August, and sockeye harvest in UCI. Several analyses conducted here suggested harvest rates of UCI-bound sockeye were not greater than expected during 1988-1993, based on relationships developed from data prior to 1988. One type of analysis suggested that harvest rates of UCI-bound sockeye in 1988 and 1992 were greater than expected.

Sockeye Harvests in Areas Targeted For Closure

Fishermen from the UCI Management Area have proposed closure of several sections within the KMA during 6-25 July. These "target areas" are Halibut Bay in the Southwest District, areas 258-10 and 258-40 in the Eastside Kodiak District, and Katmai and Alinchak Sections in the Mainland District (Exhibit 2.

Sockeye harvests in the target areas during 6-25 July of each year have increased from approximately 9,200 sockeye during 1970-1987 to 268,000 sockeye during 1988-1993 (Exhibit 17). Similarly, sockeye harvests in the remaining areas of the KMA have increased from approximately 307,000 sockeye during 1970-1987 to 1.2 million sockeye during 1988-1993. Although sockeye harvests have increased in all areas of the KMA, the percentage of sockeye harvested in the targeted areas has increased from 2% during 1970-1987 to 19% during 1988-1993. Thus, locations of sockeye harvests in the KMA have changed somewhat over the years. Such changes are not uncommon in salmon fisheries.

To examine whether harvest patterns during 1988-1993 were different from previous years, we developed a regression model to predict the percentage of sockeye harvested in the target areas compared to other areas. Independent variables tested included UCI sockeye harvest, UCI run, Kodiak sockeye harvests during June and August, pink salmon harvests, and sockeye run to Chignik Lake. The only significant variable was Kodiak sockeye harvests during June and August ($r = 0.60$). Examination of residuals indicated the percentage of sockeye harvested in the target areas was higher than expected in only 1992, although the deviation in 1988 was high compared to most but not all prior years (Exhibit 18).

In summary, the percentage of sockeye harvested in areas targeted for closure during 6-25 July has increased primarily in two recent years. The greatest increase occurred in 1992 and, to a lesser extent, in 1988. Fishing patterns in other years were not unusual. Management during July focuses on local pink salmon runs, therefore fishing patterns may be influenced by management of pink salmon runs. This subject needs more attention, but was beyond the scope of the current investigation.

REVIEW OF ADF&G REPORTS

This section of the report will review and critique draft reports by ADF&G biologists who attempted to estimate numbers of UCI sockeye salmon captured by Kodiak fishermen during 6-25 July. In general, we thought the reports were carefully written, displayed innovative ideas, and clearly identified the assumptions used in their analyses. We acknowledge ADF&G biologists were presented with a difficult task given the amount and type of resources available to them. Many of the problems associated with harvest estimates of UCI-bound sockeye were discussed in the ADF&G reports.

While numerical harvest estimates of UCI-bound sockeye could be useful, the most important estimate is the harvest rate, that is, the percentage of UCI-bound sockeye harvested by Kodiak fishermen or the harvest of UCI-bound sockeye compared to harvest of local Kodiak sockeye salmon. Essentially all of the earlier ADF&G reports dealt with numerical harvest estimates of UCI-bound sockeye rather than harvest rates.

Vining, I.W., and B.M. Barrett. 1994. The use of average weight to estimate the amount of interception of upper Cook Inlet sockeye salmon within selected areas of the Kodiak management area.

This report describes an innovative approach to the problem of estimating catches of UCI sockeye during 6-25 July. They use average weights of Kodiak and UCI sockeye salmon to estimate harvests of UCI-bound sockeye salmon. The method uses the following equation:

$$\text{Proportion Non-local} = \frac{\text{Avg. wt IP - Avg. wt Kodiak}}{\text{Avg. wt UCI - Avg. wt Kodiak}}$$

where IP is the average weight observed during the 6-25 July. This model could work very well if only two stocks were involved and accurate weights of the two stocks and accurate observed weights in the mixed stock fishery were available.

In general, the model probably identifies years of high compared with low harvests of UCI-bound sockeye salmon, but a number of factors may affect the accuracy of these estimates. The authors note some limitations of the model when they describe the assumptions and conditions for use of the model. Most of the model limitations involve the accuracy or representativeness of weight estimates. If the estimates of weight used in the model are not representative, then the calculated estimates of variance are less meaningful. Potential problems arising from the estimates of weight used in the model can be described by the following questions:

1. How much error is present among estimated average sockeye weights for specific statistical areas?
2. Are sockeye weights from June and August representative of local Kodiak sockeye weights during July?
3. Can sockeye weights generated by purse seine harvests in the KMA, which are relatively non-selective (French et al. 1976), be compared with weights generated by highly selective gillnets in UCI?
4. Are Kodiak and UCI sockeye the only stocks passing through the KMA during July?
5. How much weight do sockeye gain between Kodiak and UCI?
6. How sensitive is the model to small errors in average weight?

Question 1 refers to the fact that the average weight model relies on average weights reported from fish tickets for specific statistical areas. Barrett et al. (1994) demonstrated that average weight derived from fish tickets are reasonably accurate when average weights from many fish tickets are averaged together. However, the difference between fish ticket and ADF&G estimates of average weights for individual landings averaged 0.27 lbs or 4.9%. Absolute differences in average weight estimates for individual landings ranged up to 0.79 lbs or 15%. Thus, the accuracy of average weights derived from fish tickets from individual statistical areas will depend on the number of fish tickets. Accuracy should increase with greater numbers of fish tickets.

Question 2 refers to the use of sockeye weights in June and August as an estimate of local sockeye weight in July. This approach is reasonable if average sockeye weights during June and August are representative of sockeye during July. This assumption should be tested because several factors could cause sockeye weights during June and August not to be representative.

The relative contribution of each local stock to the Kodiak fisheries during June, July, and August is different. Each stock is likely to have a different average weight. Also, weight within each local stock is likely to change through the season. Weight during June, July, and August is related to age composition (e.g., Bristol Bay sockeye spending 3 years at sea (6.9 lbs) averaged 1.8 lbs more than sockeye spending two years (5.1 lbs)), which is different for each local stock and changing within a stock over the course of the season. The assumption that weights during June and August can be used to estimate accurately the weight of local stocks in July should be validated.

Non-local sockeye salmon (e.g., Bristol Bay, Chignik, and Cook Inlet) migrate through Kodiak in June and might influence estimates of average weight. In August, some Chignik sockeye might be harvested in the KMA. The presence of these stocks could affect estimates of average weight, depending on the number of these non-local stocks in the Kodiak harvests and the difference in average weight between the non-local and local sockeye salmon. Tagging studies primarily from the late 1940s and 1981 reported a small percentage of non-local sockeye salmon harvested near Kodiak during June (1.4% to 4.3%, Nicholson 1978, Tyler et al. 1986). Although unequal tag recovery efforts may skew stock composition estimates, these data suggest that error caused by the harvest of non-local sockeye during June may be small.

Question 3 was thought by Vining and Barrett to be a major factor causing the "ridiculous estimated proportions" for some areas and some years. Gillnets, such as those used in UCI, are widely known to select larger than average sockeye salmon, whereas purse seines, the principal gear type in Kodiak, are considered to be non-selective (French et al. 1976). Thus,

weights from UCI harvests are not directly comparable with weights from harvests in Kodiak.

Question 4 refers to the fact that sockeye stocks other than UCI and Kodiak stocks migrate through the Kodiak Management Area during July. Such stocks might include the late run to Chignik and Bear River sockeye salmon. Vining and Barrett noted the presence of stocks other than Cook Inlet and Kodiak stocks during July might have caused unreasonable results in some areas and years.

Question 5 refers to the fact that sockeye grow rapidly during their homeward migration. For example, Alaskan salmon returning to spawn after three winters at sea grow approximately 12.9% by weight per month (Ricker 1962). Thus, a 6 lb sockeye could gain approximately 0.2 lbs in 7-9 days, the time Barrett and Nelson (1994) assumed it would take for sockeye to travel to UCI. However, anecdotal information on salmon (few or no belly burns, or regurgitation of food upon capture) suggests that UCI sockeye salmon are not feeding once they reach the Kodiak area (B. Barrett, ADF&G, pers. comm.). If UCI sockeye are not feeding between Kodiak and Upper Cook Inlet, then average sockeye weight of the sockeye run in UCI would likely be representative.

Question 6 refers to the sensitivity of the model to small errors in average weight. To illustrate the sensitivity of the model to small errors in average weight, we selected three estimates of non-local proportions made by Vining and Barrett, then assumed an average weight error during July of -0.25 lbs, -0.5 lbs, 0.25 lbs, and 0.5 lbs (Exhibit 19). Such errors might arise from fish ticket error and non-representative average weights in June and August. These absolute errors (-0.5 lbs to 0.5 lbs) were equivalent to percent errors in July weight ranging from -9.4% to 11.6%. However, the resulting error in the stock composition ranged from -30% to 738%. Stock composition error (absolute and %) was greater when July weight for Kodiak sockeye was underestimated than when it was overestimated. For the given examples, the percentage of UCI sockeye in Kodiak harvests was overestimated by 22.5% when the July weight of Kodiak sockeye was underestimated by 0.38 lbs. In contrast, the percentage of UCI sockeye in

Kodiak harvests was underestimated by 10.4% when the July weight of Kodiak sockeye was overestimated by 0.38 lbs.

This analysis suggests that (1) error in average weight translates to a relatively larger error in stock composition and (2) errors in the sockeye weight during July may have a biased or unequal effect on stock composition estimates. Biases such as this might explain, in part, why about 12% of the stock proportion estimates exceeded 1.0, values that were impossible. Further research should be conducted to evaluate potential bias in stock composition estimates caused by error in average weight.

Many of the problems described above were known to Vining and Barrett. To correct for some of the problems, they excluded data when they did not meet two criteria. First, if the difference between the average weight in the UCI fishery and the estimated Kodiak local stock average weight did not exceed 0.75 lbs, no estimates of stock composition were made. Second, if the difference between the observed and estimated local average weight in July was not greater than 0.5 lbs, then no estimates were made for that year. These criteria and the frequency with which they eliminated stock composition estimates indicated the problems associated with the application of the average weight model to the Kodiak fishery.

In summary, the average weight model appears to be able to approximate the relative magnitude of UCI sockeye harvested in the KMA. However, further validation of the data used in the model appears to be necessary in order to insure that the input data are accurate and representative.

Barrett, B.M. and P.A. Nelson. 1994. Estimated run timing of selected sockeye salmon stocks on the west and east sides of Kodiak Island.

The authors present a logical and reasonable approach to the exploration of run timing of selected salmon stocks, given the data available to them and the objective of the analysis. However, it should be noted that run timing based on escapement timing (as for Kodiak stocks) or harvest timing (as for

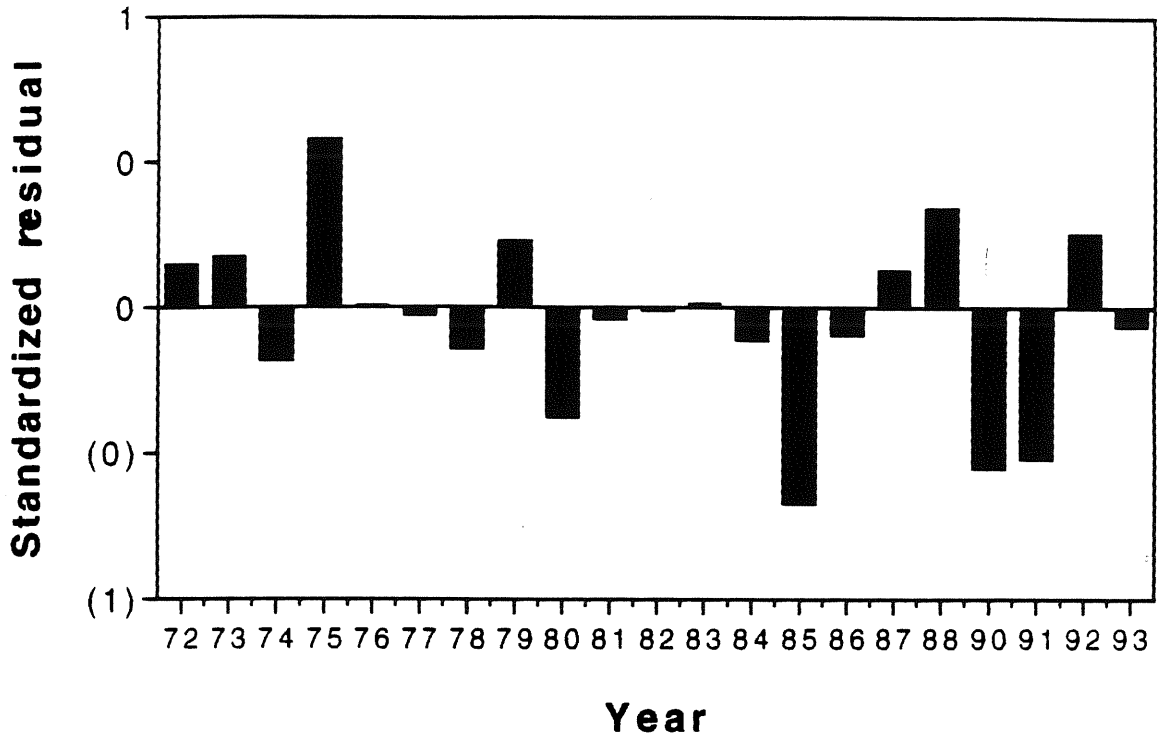

Exhibit 16. Standardized residuals ((observed-predicted)/predicted) of the regression to predict the percentage of sockeye >6 lbs during 6-25 July. Multiple regression based on average sockeye weight in UCI harvests, the percentage of sockeye >6 lbs during June and August, and sockeye harvests in UCI during 1972-1987.

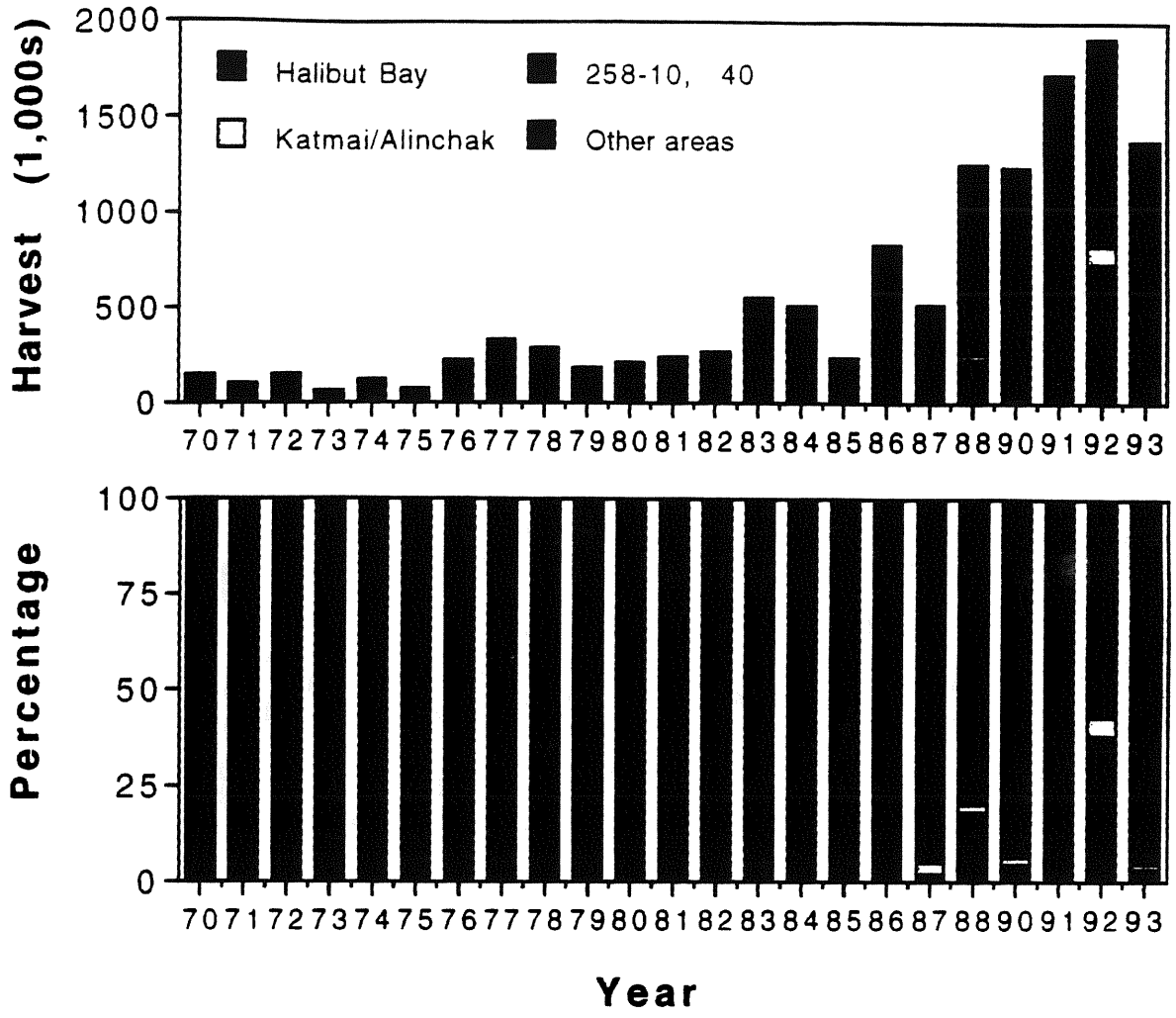

Exhibit 17. Number and percentage of sockeye harvested in areas targeted for closure and the remaining fishing areas in the Kodiak Management Area, 1970-1993.

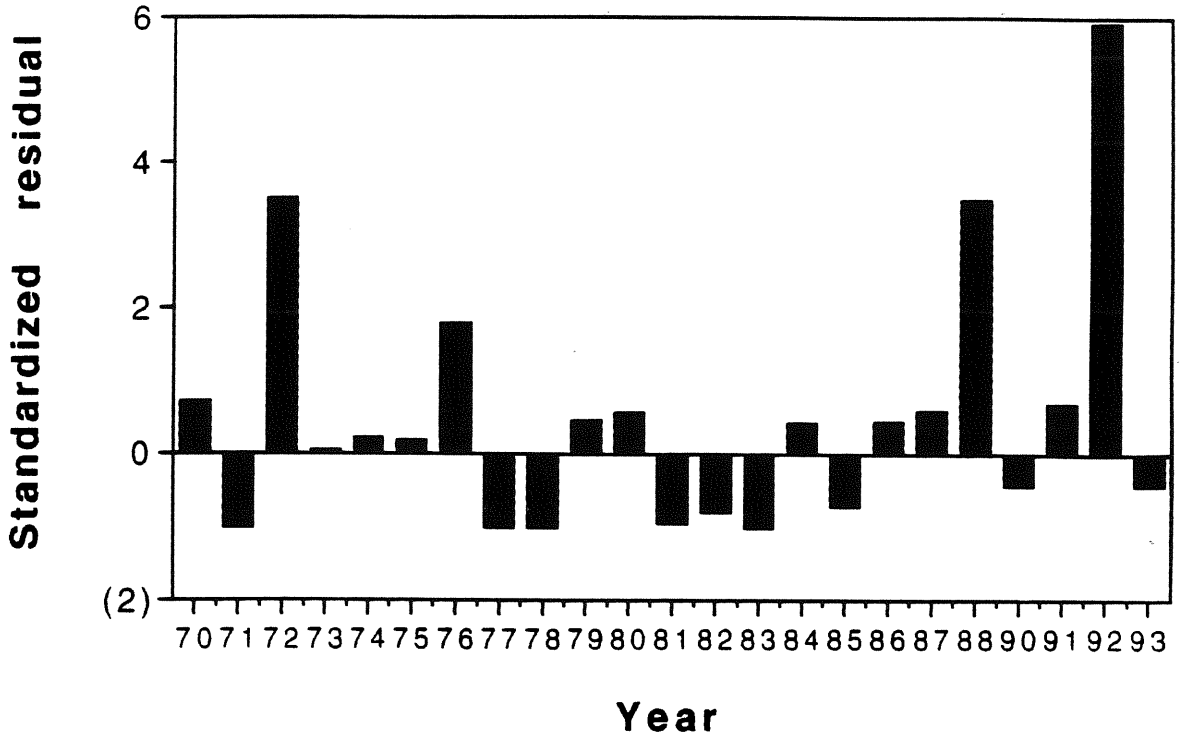

Exhibit 18. Standardized residuals ((observed-predicted)/predicted) of regression to predict the percentage of sockeye harvested within areas targeted for closure during 6-25 July. Regression based on harvests of sockeye salmon in all Kodiak areas during June and August, 1970-1987.

Exhibit 19. Three examples showing the sensitivity of the average weight model to small errors in the estimated local sockeye weight during July.

Year, area	Observed values				What If		Then		
	UCI wt.	Observed wt.	Kodiak June/ Aug. wt.	Estimated %UCI	Kodiak actual July wt.	Assumed July error (%)	Actual %UCI	Est. -Actual %UCI	Error in stock composition (%)
1983, 253	6.48	6.03	5.50	54.3	5.00	10.0	69.7	-15.5	-22
					5.25	4.8	63.6	-9.3	-15
					5.75	-4.3	38.6	15.7	41
					6.00	-8.3	6.5	47.8	738
1993, 253	5.89	5.59	4.81	72.4	4.31	11.6	81.2	-8.7	-11
					4.56	5.5	77.6	-5.2	-7
					5.06	-4.9	64.1	8.3	13
					5.31	-9.4	48.5	23.9	49
1992, 254	6.60	5.50	4.92	34.5	4.42	11.3	49.5	-15.0	-30
					4.67	5.4	43.0	-8.5	-20
					5.17	-4.8	23.1	11.4	50
					5.42	-9.2	6.8	27.7	409

F/V Alaska Lady
324 Hillside Drive
P.O. Box 101
Port Lions, AK. 99550

September 30, 2017

Chairman John Jensen
Alaska Board of Fisheries
Boards Support Section
P.O. Box 115526
Juneau, AK. 99811-5526

RE: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

Dear Chairman Jensen;

We operate our business in the small community of Port Lions. We are also a family operated vessel. We have been informed of the request by UCIDA to change the agenda. We strongly oppose this change not only because it doesn't meet the change request criteria but also it will adversely affect our family's seasonal income and others alike.

I've personally been a Kodiak Fisherman since 1978 and a permit and vessel owner since 1992. This is our family's main source of income. Employment in our community is scarce and without our business I'm not sure how we'd be able to support our family. Taking valuable fishing time away from us during June 23- July 31 would be detrimental to our family operated business. In the last few years there have been some young fisherman tapping into the industry here and with this proposed change I don't see how they'd be able to make their boat and permit payments with approximately one third of the season taken away.

Furthermore, the proposed change does not take into consideration our local stock whether a major system or a small local stream. Westside closures will certain congest an already competitive fleet. If the board accepts this proposal does it mean that Kodiak Fisherman can propose

the exact same change to other areas such as Chignik and Area M for the take of sockeye and pinks?

In closing, I want to restate that the change request does not meet the Board of Fisheries Agenda Change Request criteria. By accepting this proposal it will terribly upset one area's fishery to slightly advantage another area's harvest. Salmon are considered "common property" and do not "belong to" the management area where they were born.

Sincerely,
F/V Alaska Lady Crew/Family,

(owner/operator)
(co-owner)

Thomas E. Nelson Sr.
Dawn Nelson
Emma Nelson
Korena Nelson
Tommy Nelson
Summer Nelson

Don Bumpas
P.O. Box 167
Chignik Lagoon, Alaska 99548
Tel: (907) 840-4020

October 2, 2017

Alaska Board of Fisheries
Board Support Section
PO Box 115526
Juneau, AK 99811-5526

Re: Dolgoi Island ACR # 12

Dear Honorable Alaska Board of Fisheries Members and Chairman,

Please approve the agenda change request (ACR 12) asking for re-examination of the Dolgoi Island fishery occurring in June and July in the South Alaska Peninsula. At the Board's meeting in Anchorage two years ago it was my understanding and others involved in the Chignik fishery that the Dolgoi fishery would be regulated to where most of the area would be held to a cap of 191k through 25 July. The remaining area as, we understood from historic catch data as presented, was not considered an overly productive catch area, accounting for about 20% or so of the historic sockeye catch.

In the last two seasons, the sockeye catch in the Dolgoi Island area has well exceed the 191 thousand cap and not by a mere few thousand fish. In the 2016 fishery more than 500 thousand sockeye were harvested and this year 2017 300,000 sockeye were caught by 25 July, The catch numbers are certainly beyond any level expected and justifies a serious reconsideration of what the Board intended in passing a 191,000 cap on the fishery prior to the 2016 season.

Why the concern? Based on the WASSIP study essentially one-half of the sockeye catch in the Dolgoi fishery are destine for the Chignik River system. Many suspect that on average an even higher percentage occurs. As the Fish and Game will verify the two Chignik runs were not strong and in fact weak in the WASSIP years to the point of closures in the Igvak and SEDM fisheries because of serious shortfalls in the Chignik runs.

I am not asking you to close the Dolgoi fishery but am asking that it be controlled to where the harvest is limited to ensure that excessive sockeye catches do not occur. My recommendation is that the Dolgoi fishery in its entirely, except for terminal harvest areas, through 25 July be shut-down when fish tickets are expected to tally no more than 200,000 sockeye salmon.

Most sincerely,

Donald Bumpus

October 3, 2017

Ernie Carlson
PO Box 21
Chignik, AK 99564

Alaska Board of Fisheries
Board Support Section
PO Box 115526
Juneau, AK 99811-5526

Subject: **ACR 12**; Area M –Dolgoi Is. June –July 25th Fishery

Dear Alaska Board of Fisheries:

As a lifelong Chignik commercial fisherman I respectfully ask that the Board address the Dolgoi Island fishery pertaining to the Board's decision two years ago to limit the sockeye salmon harvest in that fishery through the June through July 25thperiod. At the time the Board's intended action was to ensure that Chignik-bound fish were not excessively harvested knowing that even during weak Chignik-run years about 50% of the catch in the Dolgoi Island Area are Chignik-bound sockeye salmon (WASSIP).

I am aware that Area M fishermen have historically targeted sockeye salmon in June and July in the Dolgoi Area, however not to the extent being sustained now. While the Board wisely set a limit of 191,000 sockeye salmon catch in what was known as the primary harvest area of Dolgoi, the cap did not effectively limit the catch for two reasons. The primary reason was once the cap was reached the fleet moved just outside the closed area to affectively harvest tens of thousands of more sockeye in the remaining open Dolgoi Island Area. The second and to a much lesser extent was that the Department did not immediately close the area once the cap was reached but rather extended fishing time to 12 hours in the first year and six in the most recent fishery 2017.

My suggestion is that the Board impose the 191,000 cap to the entire Dolgoi Island Area through July 25th. Hopefully serious consideration to this will be given recognizing that Chignik sockeye need reasonable and consistent protection from interception fisheries. As the Board knows Chignik sockeye salmon are not only harvested in the Dolgoi fishery but in the Shumagins, the SEDM and Igvak fisheries, and Chignik needs your help to maintain a viable local-stock sockeye fishery.

Thank you and sincerely,

Ernie Carlson

Norris Johnson
275 Mountain View Dr
Homer Ak 99603
October 3, 2017

Chairman John Jensen
Alaska Board of Fisheries Boards Support Section
P.O. Box 115526 Juneau, AK 99811-5526

RE: UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

To Whom it May Concern,

I, Norris Johnson, oppose the UCIDA Agenda Change Request and Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area. There is no error in regulation that needs correcting and there is no new information that creates any reason to change the regulation; which is necessary to comply with the Board's 'agenda change request' criteria.

I started fishing Kodiak in 1995 with my dad. I was nine years old and have only missed two summers since. Now I am 31 years old and have been running my own boat in Kodiak for the last four years. I have three brothers that also fish Kodiak. Fishing Kodiak has and always will be my life and my income. I currently live in Homer with my wife Faye, my son Corbin, and my 11 month old daughter Ayla. I am running a wood boat that was built in 1949. It has been a struggle to keep the boat maintained and floating. It is very hard to get started into this industry with the high boat prices, high cost of equipment, and the tough conditions of catching fish around Kodiak i.e. weather, spotty fishing, increased number of boats and so on. A large portion of my income is made during the weeks of June 23rd to July 31st. If I was to get shut down during these weeks it would be detrimental to my business.

It is not new information that Cook Inlet fish are being caught in Kodiak. Every area catches fish that are heading to the next area i.e. Area M catches Chignik fish and Kodiak fish and so on up the line. We cannot devastate one area with regulation to give another area a slight increase in catch. Cook Inlet doesn't have exclusive rights to the run. They have the right to fish their area and catch whatever fish are going by, just like every other area in Alaska including Kodiak. If Kodiak is regulated for the presence of Cook Inlet sockeye, will the board also regulate Chignik and Area M for the take of Kodiak sockeye and pinks?

Changing Kodiak management plan would not be good for the local runs. If you are fishing in Kodiak according to the escapements of Cook Inlet then the rivers in Kodiak will suffer from over-escapement. Accepting this proposed agenda change request would stop a lot of local Kodiak fish from being caught. We do not always catch Cook Inlet fish during this timeframe. It depends on the year, the run, the weather etc. To shut Kodiak down would not be taking into consideration the local fish that we are primarily catching. It would have a huge impact financially not just on my business but on the fishery as a whole. Also it would hugely impact the canneries, local businesses, and the state economy; a lot of money from Kodiak gets spent all over the state on supplies, gear, sales tax, living expense, etc.

Kodiak fisherman have been fishing the same areas and catching the same runs for 25 years and I know it goes back a lot further than that. There has not been any increase in fisherman in Kodiak targeting Cook Inlet fish. I have seen the Kodiak management plan work my entire life. I have seen good years and bad years. I have not seen a steady incline or decline to the Kodiak runs. So that tells me that the Kodiak management plan is working. The UCIDA request is unjust and without new information. What the UCIDA hopes to gain by this proposal is insignificant to the harm it would cause.

Thank you for your time,

Norris Johnson and Family

Chairman John Jensen
Alaska Board of Fisheries
Board Support Section
PO Box 115526
Juneau, AK 99811-5526

PC139
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Re: UCIDA Agenda Change Request and

Genetic Stock Composition of Sockeye Salmon in the Kodiak Management Area

Suzanne Abraham
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October 3, 2017

Alaska Board of Fish:

I would like to express my opposition of the UCIDA agenda change request. The Board's agenda change request criteria does not seem to be applicable to this request as the genetic stock composition study of the Kodiak Management area doesn't bring to light any "new" information that has a "corrective" effect on our fishery from the long term and currently adopted management plan.

I am a 36 year resident of Kodiak, and involved in commercial fishing for 34 of those years. I have owned and operated my own salmon set net site for 29 years, mostly as a single (female) parent. My children were born and raised here, and grew up fishing along side of me. One of them now fishes year round, runs boats, and recently bought his own boat. The other one is considering taking over my fish site when I am ready to retire. When I became a single parent, I chose to stay in Alaska so my children could benefit by being close to both parents. Their father also fishes salmon here. I would not have been able to afford to live and raise my children here without the income I derived from my set net site. I catch all 5 species of salmon at my site, and the sockeye runs in June and July have been crucial to my summer income.

I am concerned because the basis for the agenda change request does not make sense, and also the change request criteria notes it must be "urgent", and "in the public's best interests" . The request does not address the natural changes in run sizes of either Kodiak sockeye or Cook Inlet runs. Changing the management plan in Kodiak to reduce harvesting any Cook Inlet sockeye would have a tremendously negative impact on our local stocks through over-escapement; permit holders (seiners) gravitating to open areas and overfishing/ overcrowding/individual reduced catches. I would personally see a reduction in my catch/income if seiners moved into my area in large numbers to also pursue catching sockeye. This change could also open up a can of worms for any district/area that feels another district is intercepting "their" fish.

Salmon wander far and wide, and should not “belong” to a management area where they were born.

The economic impact of this proposal on Kodiak would be significantly negative. Reduced fishing time and overall catch for boat owners/permit holders and set net sites would trickle down to cannery workers, marine support services, and even to the rest of the community as a whole. Local spending would suffer and people would not be able to maintain a viable income to stay here, eventually moving away and further impacting our island. On a personal level, if my fishing days are reduced during the June to July sockeye runs, my income will significantly drop to where I would not be able to keep crew members due to lack of income. They already have to buy rain gear, crew licenses, and often air travel to get here, and the reduced income would make it impossible to even find people willing to work for me.

The Kodiak Area Management Plan for Commercial Harvest of Salmon is an incredibly complex plan, and encompasses many different areas. It has been fine tuned to encompass environmental obstacles and has enabled our Kodiak area to keep a viable and sustainable sockeye run for years and years. It works. Drastic changes to our management plan will not bode well for sustaining our salmon runs or for our individual and community economic situation.

Again, in closing I feel that the UCIDA agenda change request does not meet the Board’s criteria for implementation. I am opposed to this request. Thank you for your time.

Sincerely yours,

Suzanne Abraham and family