On-Time Public Comment List
Southeast and Yakutat Finfish
February 23–March 3, 2015

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Submitted By
Kevin Klepser
Submited On
2/6/2015 10:36:08 AM
Affiliation

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I oppose proposition 209 - deep mesh initiative - because it has to much of an impact on how we would overall impact sockeye stocks with the International Salmon Treaty i.e Nass River and Skeena, Transboundary Fisheries such as the Stikine and Taku river, as well as the Stocks of Concern such as Hugh Smith and Lake McDonald. People need to realize that this suppossed humpy net will in fact become a very effective sockeye net. And if available it will be used as a Sockeye net. Management will be forced to manage accordingly and the end result will be less time and less area.

I oppose proposition 210 - Monofilement- This net will place the gillnetters in even a weaker position when considering tax enhancement allocations with the Seiners. Again, the overall impact of this would effect both time and area.

I would also like to address the issue that it seems to be an intitlement attitude of the people that are behind these proposals. i.e fish less, make more. But fishing was never an intitlement program. If you want to fish, and you work hard, you will get what you work hard for. fishing was never intended to go out, drift around and make what everybody else makes with no effort. These people need to underestand that if area and time gets reduced we will relocate to fish where we can, thus densifying fishing fleet and in the end everybody will make less.

Sincerely Oppose both 209, 210 Kevin Klepser

Charles W. Treinen

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February 9, 2015

Tom Kluberton, Vice Chair
Alaska Board of Fisheries
PO Box 115526
Juneau, AK 99811-5526
http://www.boards.adfg.state.ak.us/

RE: Comments on herring proposals for SE Finfish Meeting--Feb. 23-Mar. 3, 2015

Vice Chair Kluberton:

I am writing to express my:

Opposition to proposals 114, 115, 118, 121, and 125 and,
Support for proposals 117, 119, and 122.

As a Southeast Alaska sac roe seine permit holder for the last twenty years, I have made large investments in the Sitka Sound sac roe fishery. It is a significant part of my fishing business operations providing income for me and my crew as well as for tenders, related businesses, processing and transportation that helps support Sitka, other SE fishing communities as well as the state as a whole. I also have sac roe seine permits for Prince William Sound, Kodiak, and Cook Inlet as well as participated in the open-to-entry Togiak fishery. The Sitka sac roe fishery is clearly the most intensively managed one of the lot. Long-term closures of PWS and Cook Inlet as well as Lynn Canal and West Behm Canal are a testament to the fact that all of Alaska's herring fisheries are conservatively managed with Sitka being the most carefully assessed. When stocks decline or increase--as they so often do for unknown reasons--the commercial fishery is adjusted to reflect abundance in a very conservative and precautionary way. The Sitka Sound Sac roe fishery management plan has ample protections based on valid management science and stock assessment data, but due to political pressures, has been altered unnecessarily to the point that thousands of tons of potential harvest have been foregone.

During my tenure in the fishery--this is the fifth Board cycle meeting I have attended for the Sitka Herring Fishery--one constant is the efforts of the Sitka Tribe of Alaska (STA) and their associates to limit fishing area, time and harvest or eliminate the fishery altogether based on anecdotal information and emotional appeals that are inconsistent with scientifically valid methods, data, analysis and rational decision-making processes. Nonetheless, the Board has chosen to respond to those concerns with various

changes to the management plan such as raising the threshold, increasing the amount necessary for subsistence and area closures. It seems to me that the issues of concern are at best only marginally related to proposals addressed by the board to the point that nothing short of total elimination of the fishery will satisfy the complainants. However, even with no commercial fishery, it is unlikely that the subsistence harvest will reach the ANS goal unless there is a greater level of participation in the harvesting of herring eggs on branches.

In response to the relentless attacks on and misrepresentation of the fishery over the years that has resulted in gradual erosion of commercial opportunity, in 2009 we permit holders formed the Southeast Herring Conservation Alliance (SEHCA). Funding for the organization and its activities is through permit holders, crews, processors and other stakeholders. Of particular note, SEHCA has contracted with vessels and subsistence harvesters to provide herring eggs on branches to Sitka and other SE communities showing that subsistence needs can be met when the effort is made, has provided a more accurate picture of the subsistence harvest by actually weighing the product, and monitored docks for estimating overall harvest during the season. I urge the board to account for our efforts as permit holders--through SEHCA--and to accept the sincerity of those attempts to resolve perceived commercial fishing conflict with subsistence users. However, I hope the board will also recognize my and other stakeholders frustration with the use of wildly inaccurate information and premises as a way to eliminate a well-managed fishery for little or no gain outside of the political arena.

Please reject the identical proposals 114 and 115 from the Sitka Tribe and Village of Kasaan as simply another effort to prevent herring fishing when management science would warrant that they be allowed.

Please reject proposal 118 as another iteration of the effort to curtail the fishery based on grossly unreliable subsistence harvest information and biased ANS determinations. Since the stock size estimates are based on density of spawn and width of spawning area--determined by dive surveys as well as aerial surveys of shoreline spawn length, a 'anticipated nautical miles of spawn' is not an accurate or realistic biomass assessment method for Sitka Sound. The department does not provide a preseason 'anticipated miles of spawn' for good reason. The proposal is simply another back door way to hobble the fishery with little or no biologic rationale. Clearly, this proposal would make it unlikely for the fleet to catch the GHL.

Please reject proposal 121 by the STA as another attempt to curtail the commercial fishery by asking for ever-larger exclusion areas while referencing subsistence information that is so clearly lacking in validity. Please also note that recent action by the Federal Subsistence Board has closed the federal waters around Makhnati Island so that additional closures are already in place--regardless of the reality that the area is little used and not very good for subsistence harvest. No amount of additional closed area can make up for a declining rate of harvest participation by subsistence users.

Please reject proposal 125 by STA as another attempt to curtail the fishery with no biologic rationale and rudimentary market demand analysis that does not reflect economic realities related to substitution of other herring stocks to supply the market or potential to develop alternate markets at times of low prices.

Please support all three SEHCA proposals--117, 119 and 122. I will defer to the SEHCA comments for the reasoning. In general, these proposals would mitigate unnecessary politically motivated restrictions that have been imposed on the fishery over a number of board cycles. Actions that have been taken were justified and based on inaccurate, manipulated data and anecdotal information with little or no accountability or biologic basis. These proposals provide the board with an opportunity to reinsert reliable, valid data collection methods and management science into management of the Sitka Sound herring stocks.

Sincerely,

Charles W 'Chip' Treinen

Submitted By
Mark Saldi
Submited On
2/5/2015 7:04:46 PM
Affiliation
30 year gilnetter

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I oppose proposal #209. This has been the line for the 30 years i've fished lynn canal. Its a quarter mile or less from the point sherman light. Sherman rock is a natural location for a line. If your net goes south of it, your net will hang up and tear. there is a large rock, on the beach, painted white with a range marker behind it since i've fished here. You can see it from a long way away. Moving the marker to the point will add confusion and result in line violations. It seems like alot of effort to move a line only a forth of a mile. Is this for conservation?

I am also opposed to proposal #209. I like to error on conservation and i think this will make management and enforcement more difficult. This will also favor the large boats that can carry extra gear.

I'm really opposed to proposal #210. I can only speak for Lynn Canal, but i worry about all the small local stocks that aren't formally managed. What i understand is that monofilament is very efficient. Being very efficient, with 200+ boats, i foresee shorter openings and smaller areas to fish. Auke bay is already a zoo in July and August, and the shorter openings will only make it worse. Like I said above, I like to err on conservation. I worry about overfishing, other tangled up wildlife, shorter openings, smaller fishing areas, crowded fishing areas, and the added expense of changing out years of gear accumulation. Being somewhat inefficient seems to make management easier. Everything seems to be working fine the way it is, why change.

Submitted By
Nick Martin
Submited On
2/5/2015 9:35:00 AM
Affiliation
Commercial Fisherman

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Proposal 209

My name is Nick Martin. 2015 will be my first year running a gill netter in Southeast Alaska. I have 6 years of experience in the commercial fishing industry including seining, crabbing, and shrimping. I got heavily invested in this gillnet fishery simply because of the low-cost gear and the longevity of the fishery. I plan to gillnet southeast for the rest of my life and I firmly believe that proposition 209 will negatively effect the Southeast Gillnet Fishery. I am AGAINST proposal 209 because it will hurt the August sockeye run for the future. For the future of the young commercial fisherman, please STOP proposal 209.

Submitted By
Nick Martin
Submited On
2/5/2015 9:42:37 AM
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Commercial Fisherman

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Proposal 210

My name is Nick Martin. 2015 will be my first year running a southeast commercial gill netter. I have 6 years of experience in the commercial fishing industry including seining, crabbing, shrimping. I got heavily invested in the southeast gillnet fishery simply because of the longevity and low-cost operation regarding the gill nets. I plan to gillnet southeast Alaska for the remainder of my life, and I believe that proposal 210 will negatively effect the Southeast Gillnet Fishery. I am AGAINST proposal 210 because it will hurt me financially as a young commercial fisherman. For the future of the young commercial fishing generation, please STOP proposal 210

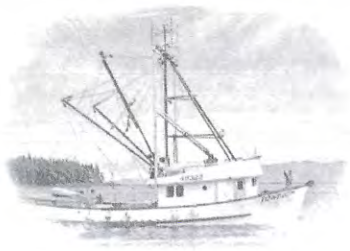
Nick Martin

Marge Guthrie

From: Chickie James <james_chickie@yahoo.com>
Sent: Monday, September 08, 2014 8:15 AM
To: Marge Guthrie
Subject: Alaska Department of Fish and Game

Alaska Department of Fish and Game
Fax: 907-267-2450
Re: Craig Board of Fisheries Proposal #149,150,151,152 On behalf of all the Subsistance users and Klawock Heenya Corp. in the Craig/Klawock area, I'm opposing the above proposals submitted by the Craig Board of Fisheries. They are taking away our rights to Subsistance fishing and have everything in the Hatchery geared toward their means if making money on seining, trolling and Charter Fishing!
Thank you,
Chickie James, Craig, Alaska

Sent from my iPad=



Leonard Leach
F/V Towego
P.O. Box 6017
Ketchikan, Alaska 99901

December 27, 2014

Alaska Board of Fisheries
Alaska Department of Fish and Game
Boards Support Section
P.O. Box 115526
Juneau, Alaska 99811-5526

Dear Chairman Johnstone and the Alaska Board of Fisheries,

I support proposal 207 to open District 6-D to gillnetters when the seiners are not fishing. This is a very good compromise by two gear groups. I heartily endorse it.

Thank you for this opportunity to comment.

Sincerely,

Leonard Leach

PO Box 55
Tenakee, AK 99841
28 November 2014

Alaska Department of Fish and Game
Board of Fisheries
PO Box 115526
Juneau, AK 99811-5526

Dear Board Members:

I wanted to share with you my thoughts on some of the proposals you will be considering as part of the 2014/2015 cycle. For the record, I have lived in southeast Alaska for 30+ years. I have owned my own boat and fished commercially in the region for 19 years both as a powertroller and a pot shrimp fisherman. I currently reside in Tenakee.

Proposal 69: Reliance on 2010 census data is potentially misleading. With regards to Elfin Cove/Port Althorp: while there may only be 14 year round residents of Elfin Cove, the summertime population is much higher in the area (at times over 200 people). I speak from personal experience as I fish commercially in the area June through September. Tenakee similarly sees a summertime population boom.

I fail to see the relevance of the number of residents under 18 in either area. Teenagers are indeed well-known for their voracious appetites, but it isn't clear whether the author feels these numbers strengthen or weaken his case. This information only muddies the issue. Regardless, the number of potential sport/personal use fishermen in these areas is higher than the author would have you believe. In short, it is my opinion that the official census numbers are irrelevent.

I oppose the part of the proposal that would affect Tenakee. Mr. Roddy offers no data on the actual needs of the community or of the number of crab annually utilized. I am unconvinced that the closed areas do in fact cost revenue or jobs. These areas currently function as marine reserves. Secure breeding areas might in fact increase biomass which would exert a positive effect on commercial revenue and jobs. I agree that in the short term, commercial fishermen would see a one-time bump in income if Kadashan Bay was open for crabbing. But long-term I think this change would not be in the best interest of commercial crab fishermen , the community of Tenakee as a whole, or the crab population in Tenakee Inlet.

I don't feel as strongly with regard to the proposal in the Elfin Cove area. Any regulatory change in Port Althorp is likely to have little immediate impact. To my knowledge, no one has commercially crabbed the area for a number of years. Sea otter depredation has reduced the local population to the point that a commercial fishery is economically unviable. For that reason I have no strong feeling on that part of the proposal other than disliking the misleading nature of the census data presented.

Proposal 93: I strongly urge the board to approve the proposal. Furthermore, I would ask that you consider granting ADFG blanket authority to extend a harvest reporting permit system to other areas of southeast Alaska as may be needed in the future. At this point in time Section 11-A may be the only "hot spot" that requires this level of attention, but as the personal use fishery expands, it is likely that ADFG will need to closely monitor harvest information in other areas as well. When that time comes I would prefer ADFG to have that authority in place, instead of needing to wait for another board cycle to request that authority. For example, Tenakee Inlet in District 12 is currently in the same status as District 11-A (closed to both personal use and commercial fishing). It might behoove ADFG to monitor harvest level if/when that area reopens.

The personal use shrimp fishery has been one of the fastest expanding fisheries in southeast Alaska. I support giving ADFG more tools with which to monitor that rate of expansion. I have full confidence that they will use a harvest reporting permit system appropriately.

Proposal 94: I oppose this proposal. I am not opposed to a spawner index management system if ADFG wishes to go that route. I am opposed to having it shoved down their throat at the board level. I recently fished in one of the key test areas that is referenced in the proposal. To the best of my knowledge the author does not have a pot shrimp permit, nor has he fished in that area recently in any capacity.

It is true that a local management biologist elected to close the fishery contrary to the spawner index protocol. This action was taken because the biologist felt that strictly following the test protocol would lead to overharvest. As someone who has recently fished in that area and was already concerned about overharvest, I appreciated that decision.

I understand that was a difficult decision to make. As Mr. Fisk correctly points out, the early closure compromised the science of the test fishery. At the same time, shimp areas are fragile and sometimes have a history of very slow recovery from overharvest. I don't want to see an entire subdistrict sacrificed as a Petri dish for experimental management theories; particularly not an area which I fish. I understand the author's viewpoint, although I think it is easier to hold that view when your interest is purely intellectual (as opposed to having your livelihood directly tied to the long-term health of the shrimp stocks in question).

The spawner index system has served Canada well. However, their fishery is different from Alaska's in many ways. I support further investigation into the appropriateness of a spawner index management system, but I don't think the board needs to force it onto the department of fish and game.

Proposal 95: support

Proposal 96: support

Proposal 98: Some fishermen are still selling their shrimp direct to the public as "boat run," which is an unsorted random mix of all sizes. I would support this proposal as long as it was clear that this provision would not add an unnecessary burden on fishermen who don't sort

their shrimp by size. If the proposal is to force everyone to sort shrimp into sizes for sale, then I would oppose the proposal. Change language so it is clear that the size mix only needs to be reported if the fisherman is in fact sorting their shrimp, and it sounds fine to me.

Proposal 99: Oppose as written. First problem is that the proposal reduces small pots proportionately more than large pots. Small pots are reduced by nearly 30% while large pots are only reduced 25%. To be fair, the maximum limit of small pots should be 105 instead of 100. This would be a 25% reduction to both sizes. The second problem I have is the strict requirement on number of pots per string and distance apart. I see no need to micromanage to that level.

Overall, the author's description of the current state of the fishery is accurate and changes would benefit the fishery. I could support a pot reduction as long as it was applied evenly to both gear types (large and small pots).

Smaller shrimp tend to trickle out of shrimp pots over time. Checking the gear repeatedly in one day prevents the smaller shrimp from escaping. Some operaters dump the smaller shrimp. There are concerns that the associated mortality has negative effects on the long-term sustainability of the fishery. Others don't dump the smaller shrimp, but there still exist concerns about the effect of harvesting more immature shrimp than necessary. Limiting to one pull a day would alleviate these concerns. It would also tend to stretch out the fishing season, which would give local managers more time to collect information and could make it easier to manage areas that have historically closed very rapidly.

It is worth mentioning that switching to only one pull per day would limit production for those boats who have the capacity or crew to run their gear more than once per day. It would not benefit the fleet equally. I believe the positive would outweigh the negative, but it would hurt some fishermen more than others and that needs to be recognized.

I like some of what I see here, but I want to see more flexibility in terms of pots per string and gear spacing in order to allow people to tailor their fishing practices to their own boat, gear, and fishing area.

Proposal 101: An interesting idea. Am curious to see the ADFG response. Would not be opposed to this as long as there were strict bycatch limits with a mandatory closure for exceeding bycatch of existing commercially utilized species. In some areas of southeast, non-spot shrimp are already targeted, albeit not to a large degree. I wouldn't want to see a summer season overlap with those areas, nor would I want to see them "accidentally" catch any significant number of spots.

Proposal 105: support

Proposal 107: I oppose the proposal. The commercial harvest in the area is of very limited duration and take.

Proposal 148: I oppose the proposal. I don't want to see "subsistence" fishing on a commercial scale. Subsistence harvest should continue to be made using customary and traditional means. The ride through Icy Straits has always been "dangerous and costly," depending on weather conditions, and I fail to understand what has changed in this regard.

I understand the concern for low-income families, and I might not oppose the proposal if it was limited to demonstrably low-income households. But writing the proposal for the whole community of Hoonah opens up a whole different can of worms. It also substantially changes the meaning of subsistence fishing as I understand it.

Proposal 155: I oppose the proposal. I would prefer to see more enforcement to prevent this "very common practice." In my opinion the likely result is more fish being caught, eventually leading to bag limit reductions. This will hurt individual anglers who don't fish with a party, or people who are currently abiding by the law.

Proposal 157: Well, this would sure make it easier to catch a legal fish. At the same time, it doesn't seem like there is a problem meeting quota allocation with the 28 inch limit. What would happen if there was a 26 inch limit? It seems like the sport allocation would be reached more quickly. Bag limits might need to be adjusted to reflect this fact.

Proposal 174: I oppose this attempted resource grab by the Territorial Sportmen Inc. They would have more credibility with me if they were willing to close the sport king salmon fishery in Districts 11, 14, and 12 (north of Point Couverdon) in conjuction with a commercial closure,

Some of the description in the proposal seems misleading. For example, to refer to the commercial troll fishery as having "few regulations or controls" is probably news to Alaska Department of Fish and Game.

Proposal 176: I support attempts to get trollers within their allocation limits.

Proposal 192: I believe this is already required. Don't fish tickets have an area for recording personal use salmon that were commercially harvested? I could be mistaken, but this appears to be redundant. If I am mistaken, then I have no objection.

Proposal 193: The authors of this proposal offer no evidence in support of their claim that "purse seine effort...has interfered with the ability of Angoon residents to meet their subsistence needs for salmon." I can't support such a drastic step without being sure that it is well-directed. I realize it is outside the scope of the Board of Fish, but I would prefer to see some money directed toward researching the run characteristics of the sockeye stocks in question. The proposal is too poorly reinforced factually to be supported at this time.

Proposal 194: Insufficient information aside from author's opinion. Commercial seining in the area may have increased recently. But I have to oppose this without more data on historical catch rates and an analysis of how they may have changed.

Proposal 195: See above. Demonstrate a problem with coho salmon returns first.

Proposals 196 and 197: I have no problem with gathering more information. It may be difficult to overcome bureaucratic inertia, as ADFG doesn't like to change their statistical gathering procedures. However, it seems that in this case no information will be lost, and additional information (potentially useful) would be available moving forward.

Proposal 199: See comments on Proposal 193. I recognize that Angoon residents have encountered difficulties recently in meeting subsistence needs. However, they need to demonstrate a cause and effect relationship between their harvest and the proposed solution. The proposal is insufficiently supported.

I'm not sure that I would like to use a 65 year old chart (Goldschmidt & Haas, 1946) to delineate the area of the closure.

Proposal 200: See above. A number of these proposals are very similar in their proposed solution to a problem, but they all lack any evidentiary underpinning.

Proposal 220: I oppose this. I understand that moving the boundary line farther out to sea will expand fishable area and probably increase catch rates on some days. But I don't understand why Yakutat fishermen deserve special treatment. What is the criteria for deciding when to extend the winter troll boundary? As I understand it, one reason for having a winter boundary line is exactly to restrict access and to keep catch rates low. If the Yakutat fleet gets their winter line moved out to sea in order to increase access will other communities follow suit? Should we do away with the winter boundary line altogether? After looking at a map of the proposed area, it appears the line in Yakutat is already too far outside the surfline and it should be moved the other direction if anything.

Proposal 221: I don't have a problem with this. Icy Bay is inside the winter surfline. I agree it is likely to have minimal impact.

Proposal 223: I have mixed feelings on this proposal. I agree with the 5 points at the end of the proposal. Given my fishing patterns and boat size, the proposal would probably benefit me personally.

On the other hand, this proposal would largely take away fish from the high-volume producers who target the high abundance king salmon areas, especially those who fish on the Fairweather grounds. Those salmon would be redistributed in August to the whole fleet, especially those fishing closer to the beach and to the benefit of lower-volume boats that can't pack as many fish in their holds.

I am an ATA member and I understand ATA opposes the proposal. I think this change would help the overall troll fleet as a whole, but at the expense of some members. In general I don't favor redistributive proposals like this without good reason. I do think there is some good reason here, but I don't know if it is a good ENOUGH reason.

Proposal 224: I support this as long as there is some verifiable measure or trigger to determine when "too few" kings remain on the quota. For example, when there are less than 3,000 kings left.

Proposal 228: I oppose a mandatory 10 day troll closure in all of southeast Alaska just to support the village of Angoon's subsistence coho fishery. Living in Tenakee, just across Chatham Strait from Angoon, the best coho fishing here occurs in the rivers in late fall. It is likely the same near Angoon. A 10 day closure in August is unlikely to have much effect on their subsistence coho fishery. Moreover, it seems excessive to close fishing region-wide. This feels like using a sledgehammer to kill mosquitos. Perhaps a reworded proposal that closed fishing in the area directly in front of Angoon would be just as useful and less economically damaging.

As in other proposals relating to Angoon subsistence concerns, it seems to me that the next step needs to be to develop information regarding the cause of the problem. Perhaps that step has been taken, but if so I couldn't tell from the way this proposal was presented. More information regarding a cause and effect relationship between the commercial fishery and the subsistence fishery is necessary.

Proposal 230: I oppose the proposal. I support measures that will increase troll access in order to redress the current allocation imbalance. Chum trollers in this area are a good step toward getting allocation back where it should be Passing this measure would only work to exacerbate the allocation imbalance.

That wraps up my thoughts on the matters before you. If you have any questions regarding my testimony you are welcome to contact me individually or as a group.

Sincerely,

Zeb Strong

Zeb Strong
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Alaska Department of Fish and Game
Board of Fisheries
P. O. Box 115526
Juneau, AK. 99811-5526

January 8, 2015

Re: Proposal 131

Dear Sirs,

I believe it is important to accept and approve this proposal. This proposal would allow the use of sablefish pots in addition to longlines in the Southeast Alaska Sablefish fisheries. Allowing the use of sablefish pots in the Southeast Alaska Sablefish fisheries would:

1. Alleviate the growing problem of Sperm Whale interaction and depredation of longline sablefish. The results of Sperm whale interaction are a reduced CPUE by the longline fishermen and an unquantified mortality of sablefish, both those eaten as well as those damaged when the whales strip them off the longline gear. At some point the Department will assign a mortality estimate to this reduction of the biomass which will further reduce our quota, or the reduced biomass will be counted in the mark/recapture or other survey methodology; again reducing our quota.

2. Increase the quality of the sablefish catch. Pot caught sablefish, in my experience, are much less likely to have sand flea bites and degradation than pot caught cod. There is also a safety element in that a fisherman would be more inclined to haul longline gear in bad weather and minimize sand flea damage than waiting until the weather passes.

3. An increasing problem in the longline fisheries is birds attacking and being caught on baited longline gear as it is being set. Fishermen use bird avoidance devices which are fairly effective but not perfect at keeping birds away. This last year the yearly limit of one endangered bird species was killed by longline boats using bird avoidance devices. Bird interaction with longline gear has the potential to curtail longline fishing in areas of Alaska. The use of pots eliminates bird interaction.

4. Significantly reduced bycatch of halibut and rockfish.

The objection I have heard against allowing pots in the sablefish fishery is primarily possible gear conflicts between longline and pot gear. I would like to point out that pots are presently allowed in the sablefish subsistence fishery in a portion of Frederick Sound, a portion of Chatham Straits south of Point Gardner, and a large area of upper Chatham Straits in the vicinity of Peril Straits and Peril Straits itself. There have also been occasions in the last few years when the Brown Crab fishery has been open at the same time on the same grounds as the NSEI sablefish fishery. The Brown Crab fishery utilizes a number of individual pots which, two years ago, translated into over 500 pots in the area between Point Gardner and Point Ellis when the Chatham sablefish fishery was open concurrently. In this circumstance a longliner had to pay attention when setting but one has to pay attention anyway because there might be longline gear there as well. I should also point out that generally sablefish pots are fished in long strings similar to longline gear rather than individually.

It is worth noting that the Department of Fish and Game utilizes pots in their sablefish mark/recapture survey.

It might be worthwhile to mandate that both ends of a sablefish pot string be marked, although it is difficult for me to imagine that a pot fisherman wouldn't want to mark both ends of a pot string.

Another possible measure which would reduce potential conflicts would be to restrict that area between Point Gardner and the mouth of Peril Straits to longline only. Many of the smaller Chatham Sablefish longline vessels fish in this area. These are the vessels that would have difficulty carrying, setting, and hauling a number of sablefish pots.

Finally, I would personally prefer to continue longline fishing for sablefish. In my experience longline gear is fishier than pots, that is, it takes less time to catch your quota with hooks than pots. But with the advent of sperm whale predation on longline hooked fish as well as efforts to protect endangered birds and some rockfish we need to look ahead. These problems are not going to get better; whale interactions are getting worse every year. Some sablefish longliners fishing in Federal waters north of Sitka this last summer estimate that the whales take 75% of the fish hooked. Our sablefish fishery as presently conducted is going to prove unsustainable if we don't acknowledge the problems and solve them.

Sincerely,

Ronn Buschmann

Territorial Sportsmen INC.

Post Office Box 32712 • Juneau, Alaska 99803

Telephone: (907) 789-2399 • Fax: (907) 586-6020

January 24, 2015

Alaska Board of Fisheries
Alaska Department of Fish and Game
P.O. Box l115526
Juneau, AK 99811-5526

Dear Board of Fisheries:

The Territorial Sportsmen, a Juneau conservation organization of 1,600 members, has the following comments on proposals before the board at the February 23rd meeting at Sitka.

Proposal 157 – Reduce the sport king salmon limit to 26 inches.

We FAVOR this proposal, especially in inside waters where feeder king salmon are scarce despite huge numbers of kings moving up and down the outside coast. In recent years feeder king salmon abundance coastwide is at very high levels and the daily sport bag limit is set at three fish. Sport catch statistics in the Juneau area, however, show incredibly poor fishing with no noticeable bump from the coastwide abundance. Fish & Game no longer publishes the rod hours data in Juneau because the hours per fish are depressingly high, often exceeding 100 hours per fish.

A reduction in the size limit, at least in inside waters, will allow fishermen a slight extra chance to take home one fish. A suggested amendment might allow one fish in the bag limit to be 26 to 28 inches. Other US Canada Treaty states have differential sport and commercial size limits. The commercial limit is 28 inches from California to Yakutat. Washington State has a sport size limit of 22 inches in inside waters and 24 inches on the outside coast. In Canada the sport size limit is 45cm which is about 17 inches. Alaska is the only treaty state with a 28 inch sport limit. Sport size limits from Kodiak west is 22 inches. Clearly the 28 inch sport limit in Southeast Alaska is not an ironclad necessity for conservation purposes in years of high abundance.

Proposals 167, 168 & 169

We FAVOR these proposals and view them as housekeeping, making permanent what has been accomplished by emergency order for several years.

Proposal 173

We OPPOSE this proposal. It is vague, and if taken literally would monkey-wrench a process that is working fine under existing regulations.

Proposal 174

We FAVOR this proposal, as well as a suggested rewrite that includes a more comprehensive plan including the Chilkat River, which is attached to this document.

Proposal 222

We FAVOR this staff proposal and view it as correcting an oversight.

Proposal 227

We OPPOSE expanding the Admiralty shore June chum fishery to 7 days per week. This fishery was authorized for 3 years which was intended to give Fish & Game time to monitor juvenile chinook encounters in the fishery, the results of which would determine whether the chum fishery should continue. We are not opposed to the 4 day fishery if king salmon encounters are minimal. We cannot support a 7 day per week fishery without any data on king salmon bycatch.

Proposal 229

We have no objection to this proposal if Fish & Game feels that juvenile king salmon interception would not be a problem in the proposed corridor. However, if this corridor is a known area of juvenile king salmon rearing and migration, we would oppose it.

Thank you for the opportunity to comment. We will have representatives at the meeting and hope to participate in committee discussions on these and other proposals.

Sincerely,

Jerry Burnett
President, Territorial Sportsmen, Inc.

Attachments

DRAFT

January 25, 2015 Draft – Suggested Taku and Chilkat Rivers Chinook Management Plan based off proposal 174.

5AAC 33.XXX. (new section) Taku and Chilkat Rivers King Salmon Management Plan. (a) The Board of Fisheries finds that king salmon returning to the Taku and Chilkat Rivers in northern Southeast Alaska are vitally important to the economy and the culture of southeast Alaska as well as for food, livelihood and recreation for residents. The stocks have exhibited strong and weak returns over many decades. Recent downturns in king salmon abundance statewide has generated generally more conservative management practices, but in northern Southeast Alaska no regulatory mechanism exists to restrict harvests when there is no surplus. King salmon bound for the Chilkat and Taku Rivers are caught in many distant mixed stock troll fisheries within the region, and to a lesser extent in sport and gillnet fisheries closer to the rivers. Other stocks caught simultaneously in the mixed stock fisheries include Alaska hatchery stocks and non-Alaskan treaty stocks. The board places the highest priority on achieving adequate escapements of wild king salmon to the Taku and Chilkat Rivers and desires to curtail harvests to achieve those ends. The Taku and Chilkat king salmon stocks have different life history and migration patterns, and management of the transboundary Taku River is further complicated by US Canada Treaty obligations. The preseason forecast is the only existing tool to determine when in-season restrictions are needed. A management plan that minimizes fishing on the escapement during poor years and tailored to the unique life history of each stock will reverse the failure of

the existing management strategy and restore the long term viability of these important stocks. This management plan does not apply during years when the preseason forecast exceeds the upper bound of the inriver goal for both the Taku and Chilkat Rivers.

(b) Notwithstanding the provisions in 5AAC 47.055 Southeast Alaska King Salmon Plan, when the Taku River total run preseason forecast of king salmon 28 inches or greater in length is 30,000 to 38,500:

(1) reduce the sport bag limit to one king salmon in district 11-A from April 15 to June 15 (hatchery enhancement areas are not included in this restriction);

(2) close subdistrict 14C and district 12 north of the latitude of the southern entrance to Peril Strait (xx degrees N. lat.) to commercial trolling for king salmon from April 1 to June 30 (note: these areas would remain open to chum trolling with non-retention of king salmon consistent with existing regulations);

(c) Notwithstanding the provisions in 5AAC 47.055, when the Taku River total run preseason forecast of king salmon 28 inches or greater is 21,500 to 30,000:

(1) reduce the sport bag limit to one king salmon in all of district 11 and in district 12 north of the latitude of Point Couverden from April 15 to June 15 (note: this does not apply in the hatchery enhancement areas of Fritz Cove, Auke Bay, DIPAC Hatchery and Lena Cove) ;

(2) close district 14, district 12 and district 9 north of a line from Point Thatcher to Distant Point to commercial trolling for king salmon from April 1 to

June 30 (note: these areas would remain open to chum trolling with non-retention of king salmon consistent with existing regulations).

(3) increase the area closed to gillnetting in district 11 during the first opener in June (describe).

(d) Notwithstanding the provisions of 5AAC 47.055, when the Taku River total run preseason forecast of king salmon 28 inches or greater is less than 21,500:

(1) reduce the sport king salmon bag limit to one fish in all of district 11, district 12 north of the latitude of Point Sophia, and close Taku Inlet, Stephens Passage in district 11 south of the latitude of Outer Point, and Gastineau Channel south of the Douglas Bridge to king salmon fishing from April 15 to June 15 (excluding hatchery enhancement areas of Fritz Cove, Auke Bay, DIPAC Hatchery and Lena Cove);

(2) close districts 14, 12 and 9 to commercial trolling for king salmon from March 1 to June 30 (note: areas remain open to chum trolling with non-retention of king salmon consistent with existing regulations);

(3) delay the June opening of the gillnet fishery in district 11 by one week and increase the area closed to gillnetting (describe).

(e) Notwithstanding the provisions in 5AAC 47.055, when the Chilkat River total run preseason forecast of king salmon 28 inches or greater in length is XXXX to XXXX:

(1) reduce the sport bag limit of king salmon to one fish in district 15 north of the latitude of Point Sherman from April 15 to June 15;

(2) close district 14C and district 12 north of the latitude of the southern entrance to Peril Strait (XX degrees N. Lat.) to commercial trolling for king salmon from April 1 to June 30 (note: these areas would remain open to chum trolling with non-retention of king salmon consistent with existing regulations.

(f) Notwithstanding the provisions of 5AAC 47.055, when the Chilkat River total run preseason forecast of king salmon 28 inches or greater in length is YYYY to YYYY:

(1) reduce the sport bag limit of king salmon to one fish in all of district 15 from April 15 to June 30;

(2) close district 14, district 12 and district 9 north of a line from Point Thatcher to Distant Point to commercial trolling for king salmon from April 1 to June 30 (note: these areas would remain open to chum trolling with non-retention of king salmon consistent with existing regulations).

(3) delay the June opening of the gillnet fishery in district 15 by one week.

(g) Notwithstanding the provisions of 5AAC 47.055, when the Chilkat River total run preseason forecast of king salmon 28 inches or greater in length is less than ZZZZ:

(1) close district 15 to sport fishing for king salmon from April 15 to June 15;

(2) close districts 14, 12 and 9 to commercial trolling for king salmon from March 1 to June 30 (note: areas remain open to chum trolling with non-retention of king salmon consistent with existing regulations);

(3) delay the June opening of the gillnet fishery in district 15 by one week, and require daylight only fishing from 7am to 9pm during open periods in June and July.

MEMORANDUM

STATE OF A

DEPARTMENT OF FISH AND GAME

Division of Sport Fisheries

TO: Distribution

DATE: 9/25/2014

FROM: Philip Richards
Fisheries Biologist
Division of Sport Fish
Douglas, AK

PHONE: (907) 465-8114

SUBJECT: 2014 Southeast Alaska Chinook Salmon Escapements

The 2014 Chinook salmon stock assessment projects in Southeast Alaska and transboundary rivers are complete. Preliminary estimates indicate 6 of the 11 Chinook salmon index systems monitored in Southeast Alaska met or exceeded spawning escapement goals in 2014. In general, escapements in northern Southeast Alaska (north of the Stikine River) were poor, while escapements in southern Southeast Alaska (from the Stikine River south) were good. The preliminary spawning escapements for 2014 are shown in Table 1. Note that spawning escapements were determined using observer counts, mark-recapture estimates, and weirs.

Escapements to the Situk, Stikine, Chickamin, Keta, and Blossom rivers and Andrew Creek were within or above escapement goal ranges. In 2014, harvests were once again severely curtailed for the Situk River stock of Chinook salmon and the escapement goal was met. The run in the transboundary Stikine River was good; however a landslide on the lower Tahltan River, which supports about 70% of the Stikine River Chinook salmon run, likely prevented a significant portion of fish from reaching their spawning grounds.

Escapements to the Alsek, Chilkat, Taku, King Salmon, and Unuk rivers were below escapement goal ranges. A preliminary mark-recapture estimate for the Chilkat River suggests the escapement goal was missed for a third year in a row. Aerial survey counts indicate the transboundary Taku River was well below goal and counts were the third lowest since standardized surveys begin in 1973. Survey conditions on the Canadian tributaries of the Taku River were good to excellent. A Taku River mark-recapture abundance estimate is pending and will not be available until November. The King Salmon River had the second lowest count since standardized surveys began in the early 1970s. The Unuk River was below escapement for the third year in a row, and the only times escapement was below goal in 36 years of data.

Thanks to all who helped collect this data and please distribute to anyone that may be interested.

cc: Brian Frenette, Lowell Fair, Tom Brookover, John H. Clark, Jim Hasbrouck, Bob Clark, Eric Volk, John Carlile, Dani Evenson, Judy Lum, Bob Chadwick, Dan Gray, Richard Chapell, Tom Kowalski, Dan Teske, Steve Heinl, Mike Jaenicke, Todd Johnson, Micah Sanguinetti, Ed Jones, Scott Kelley, Patti Skannes, Brian Marston, Scott McPherson, Kelly Reppert, Charlie Swanton, Troy Thynes, Scott Walker, Gordie Woods, Brian Elliott, Jeff Williams, Troy Jaecks, Sarah Power, Scott Forbes, Kevin Clark, Dave Harris, Jeff Nichols, Troy Tydingco, Grant Hagerman.

Table 1.–Southeast Region Chinook salmon escapement goals and escapements, 2009–2014.

System	Assessment method	Goal type	Escapement goal	Year established	Escapement[a] 2009	2010	2011	2012	2013	2014
Blossom River	AS, IE	BEG	150–300	2012	123	363	147	205	255	217
Keta River	AS, IE	BEG	175–400	2012	219	475	223	241	493	439
Unuk River	MR, AS	BEG	1,800–3,800	2009	3,157	3,835[b]	3,195[b]	956[c]	1,135[c]	1,691[c]
Chickamin River	AS, IE	BEG	450–900	1997	611	1,156	853	444	468	652
Andrew Creek	AS,	BEG	650–1,500	1998	628	1,205	936	587	920	1,261
Stikine River	MR, weir	BEG	14,000–28,000	2000	12,803[b]	15,116[b]	14,480[b]	22,327[b]	16,735[b]	20,000[b]
King Salmon River	AS	BEG	120–240	1997	109	158	192	155	94	68
Taku River	MR, AS	BEG	19,000–36,000	2009	29,797[b]	28,769[b]	27,523[b]	19,429[b]	18,002[bc]	11,944[bc]
Chilkat River[d]	MR	BEG	1,750–3,500	2003	4,386	1,775	2,654[b]	1,721[b]	1,706[b]	1,290[b]
Alsek River[e]	Weir	BEG	3,500–5,300	2013	6,239	9,518	6,668	2,660[b]	5,044[b]	3,403[b]
Situk River	Weir	BEG	450–1,050	2003	902	166[f]	240	322	912	475

Note: AS = peak aerial survey, IE = index escapement, MR = mark-recapture, NA = not available; gray cells indicate escapement goal not met.

[a] Goals are for large (≥660 mm mideye to fork length, or fish age 1.3 and older) Chinook salmon, except for the Alsek River which is germane to fish age 1.2 and older and can include fish <660 mm mid-eye to fork length.

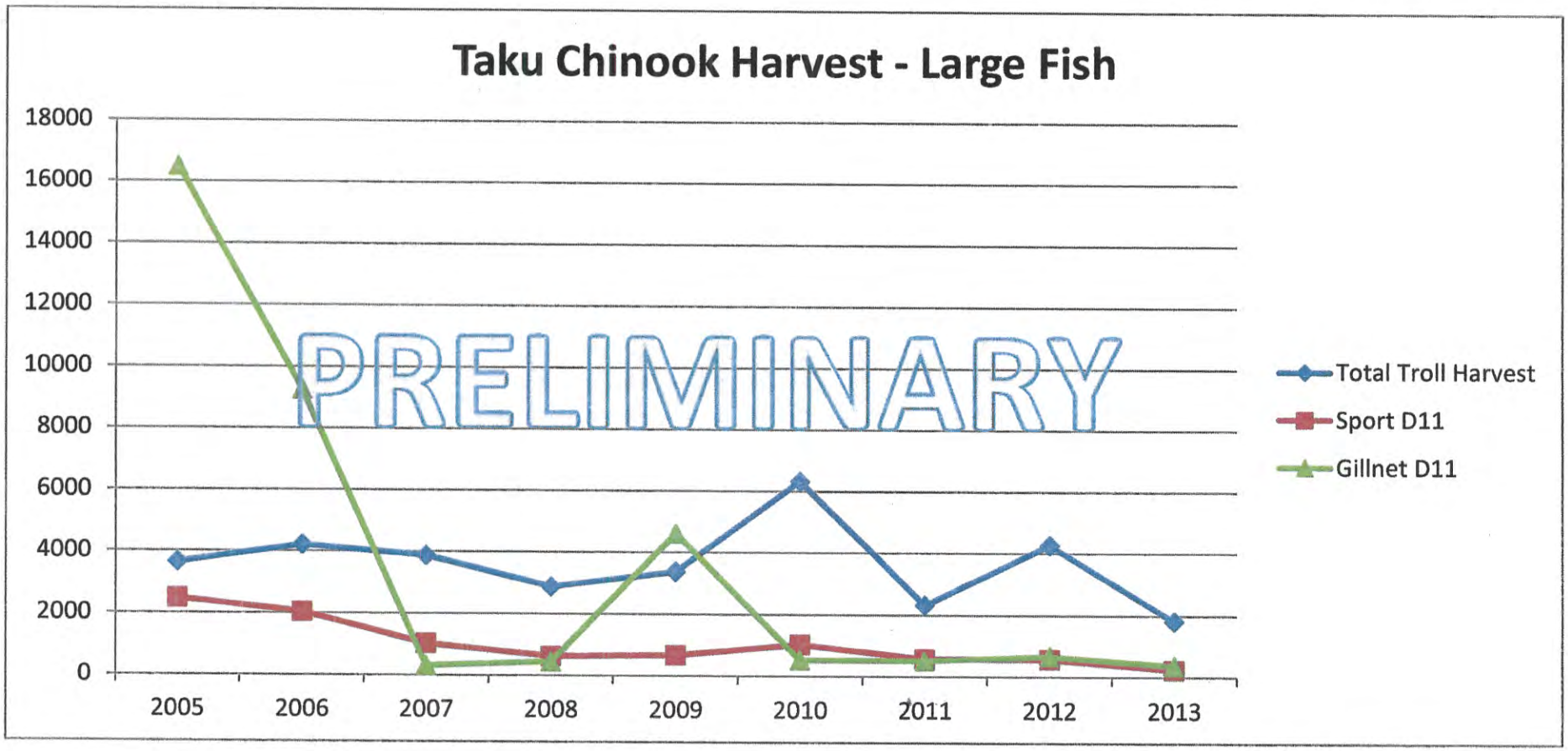
[b] Preliminary estimate pending final report publication.

[c] Estimates based on expanded aerial survey index because mark-recapture studies failed.

[d] The Chilkat River Chinook salmon escapement is the mark-recapture estimate of inriver run minus reported subsistence harvest. The inriver goal of 1,850–3,600 (5 AAC 33.384) is directly measured through mark-recapture and is not discounted for inriver subsistence harvests that average <100 fish.

[e] Alsek River Chinook salmon escapement is estimated using an expansion based in part off the Klukshu River weir count.

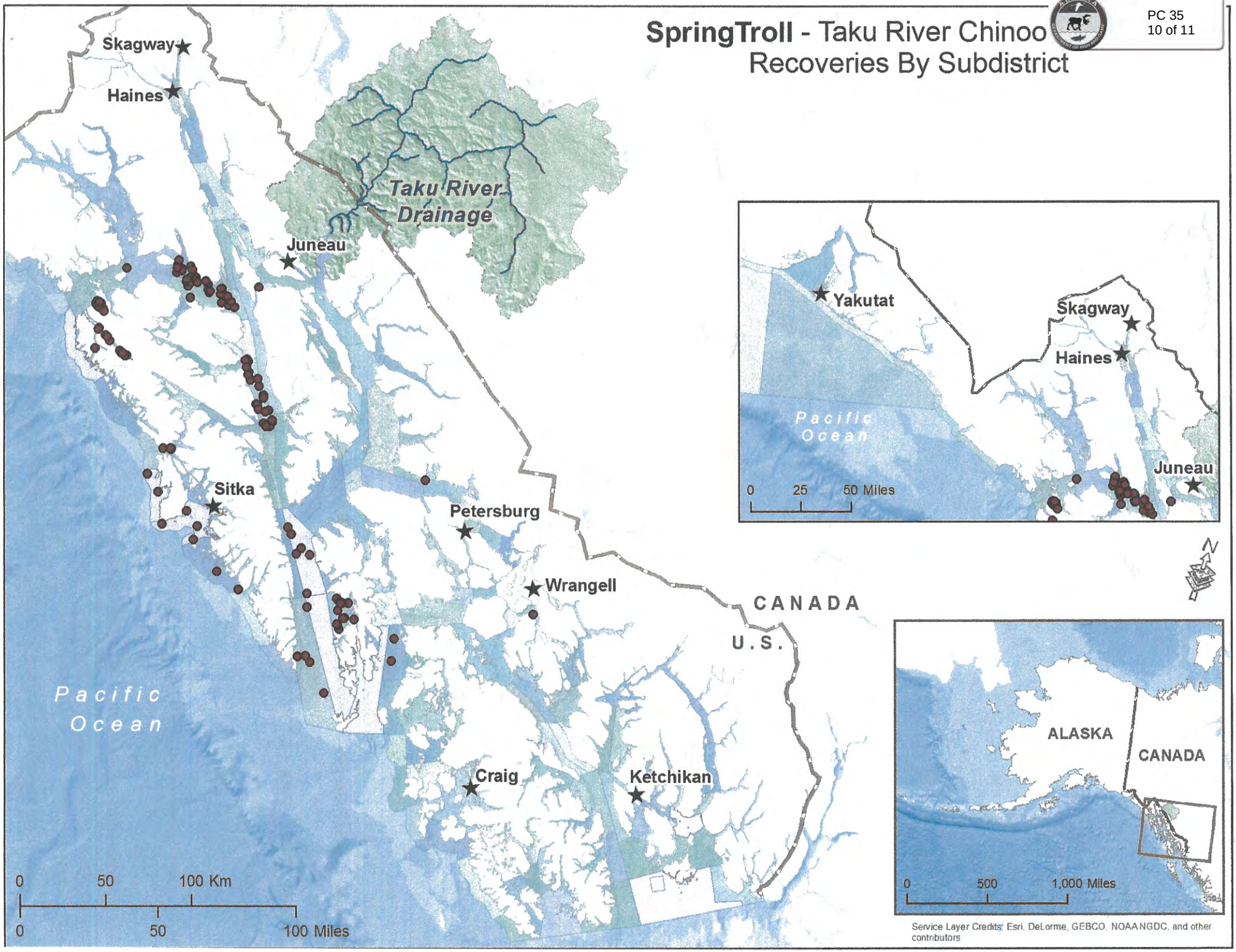
[f] The Situk River weir compromised for a few days in 2010; however, the consensus is that the escapement was still below goal.



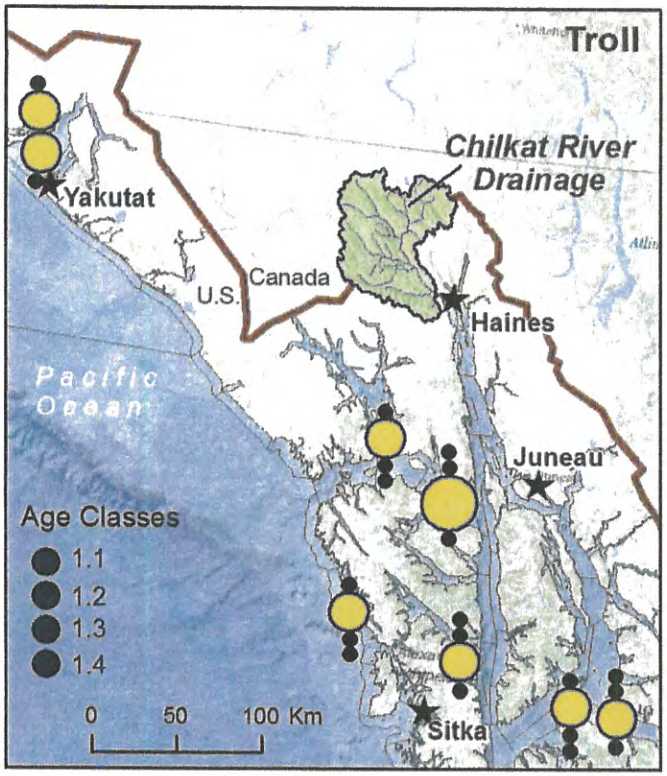
2005-2009 troll harvest = Gilk-Baumer, S., W. D. Templin, and L. W. Seeb. 2013. Mixed stock analysis of Chinook salmon harvested in Southeast Alaska commercial troll fisheries, 2004–2009.

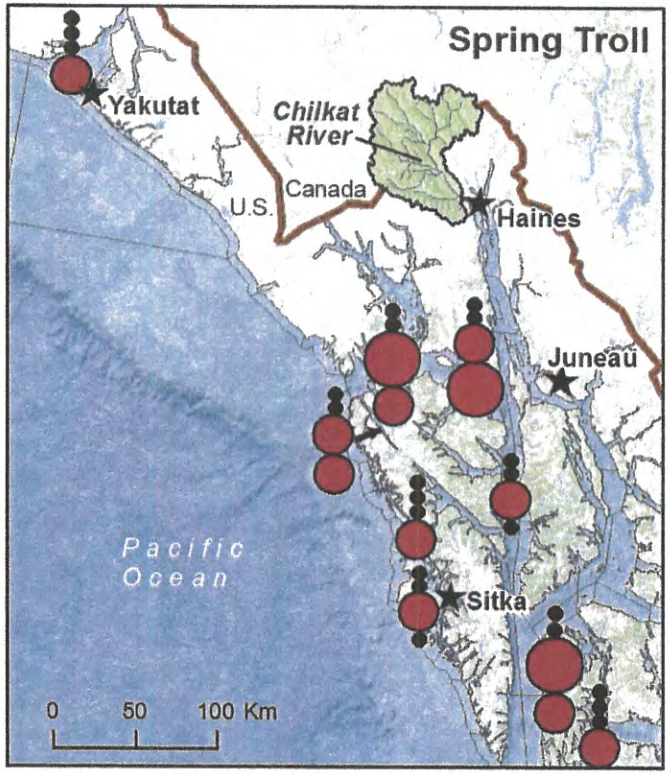
2010-2013 Troll harvest preliminary. Total return preliminary.

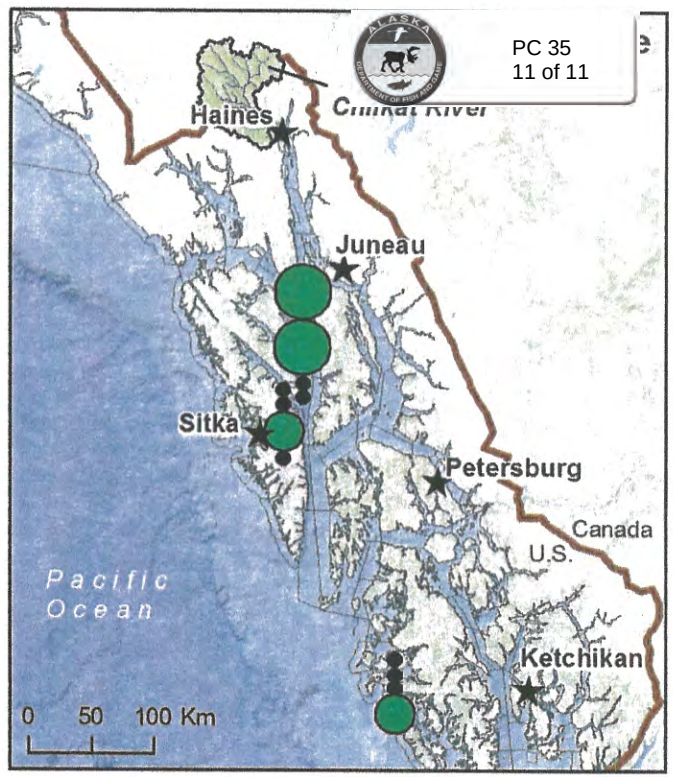
SpringTroll - Taku River Chinook Recoveries By Subdistrict

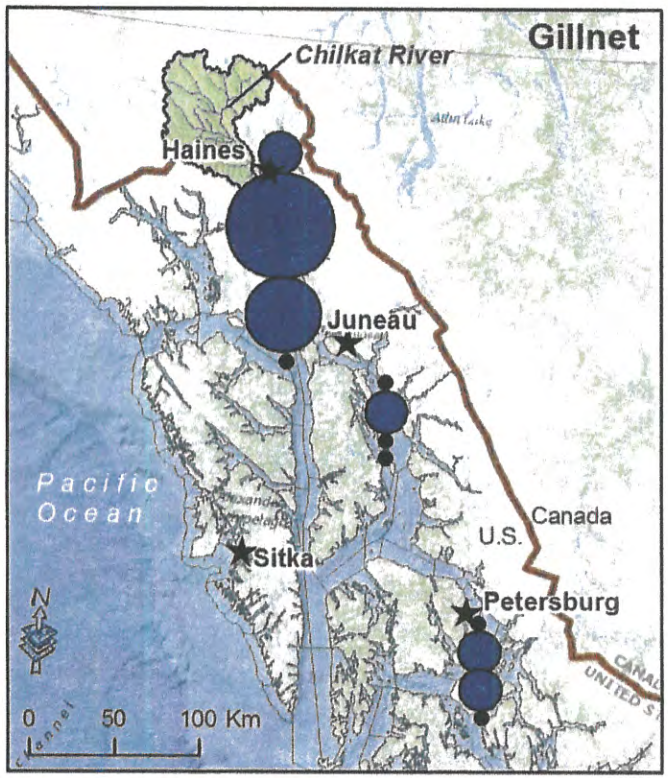


Service Layer Credits: Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors









Chilkat Chinook Salmon Harvest: 2007-2014

Note: the proportion of total harvest is arranged longitudinally by year class (1.1-1.4) for area and gear group.

1.1
1.2
1.3
1.4

Proportion of Harvest

- No harvest represented
- 0.2- 2.0
- > 2.0 - 5.0
- > 5.0 - 10.0
- > 10.0 - 15.0
- > 15.0

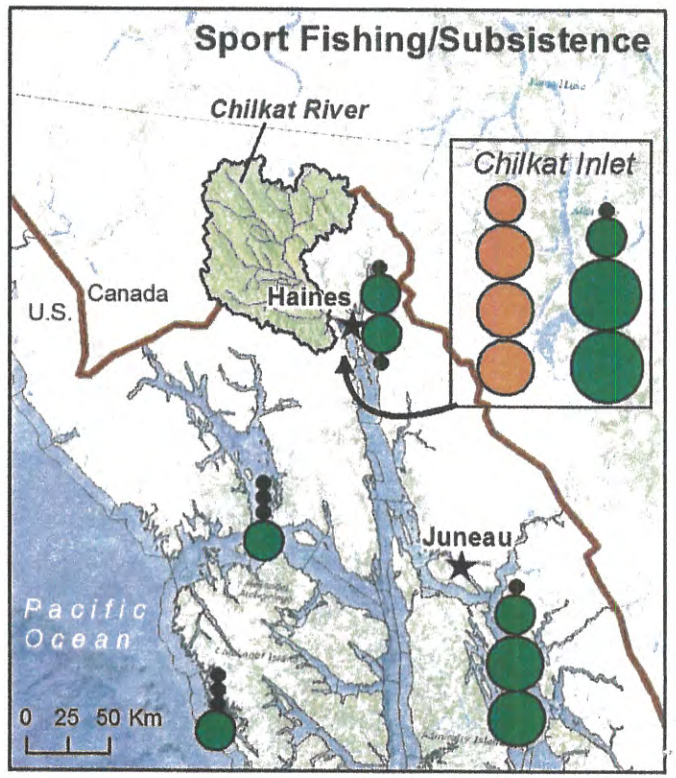
Gear/Use Group

- Troll
- Spring Troll
- Purse Seine
- Gillnet
- Subsistence
- Sport Fishing

US-Canada Border

Commercial Salmon Fishing Subdistricts

Chilkat River Drainage



Submitted By
Ryan Kelly
Submited On
2/5/2015 8:15:35 AM
Affiliation
troller

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I SUPPORT 176 It adds oversight to a sound management plan which ultimately benefits all three gear groups. The Board of Fish's 1994 Findings clearly lay out what steps must be taken to bring a gear group into allocation. Section 13 (A) of 94-148-FB states *"The joint RPT will make appropriate re ommendations through the Commissioner to fa ility(s) annual operating plan(s) to attain allo ation goals."* It requires hatcheries to take initiative to correct the imbalance in their areas but the desire to change is missing at the northern hatchery Boards. Initiative vs inertia.

Submitted By
Steve Merritt
Submited On
1/22/2015 10:33:49 PM
Affiliation
Commercial Salmon Troller

Written Comments Opposing proposal 174 --- by Steve Merritt

Board of Fisheries 2015

I OPPOSE proposal 174 for the following reasons. The proposal, under the cloak of being a conservation management type of proposal, is really an unjustifiable, selfishly biased, allocative proposal. The Territorial Sportsmen first in voicing their concerns with the management of the Taku, try to impress upon you there is a terrific need for this proposal to pass. Second, they have a plan that is of good stewardship in nature that results in all user groups taking on their fair share of the conservation burden. Nothing could be further from the truth.

Many of the statements of the troll fishery's catch of the Taku Chinook in relation to the other user groups are not factual and the ones that are, have been depicted in a negative light.

This table copied from the Pacific Salmon Commission's Joint Chinook Technical Committee's *2013 Exploitation Rate & Model Calibration Report Volume 2 Appendix Supplement. Appendix c42*

***Appe**ndix C42. Percent distribution of Taku River total fishing mortalities among fisheries and escapement*

Year	CWTs	Troll	Net	Sport	Total ESC
1996	340	1.1%	2.4%	2.6%	93.9%
1997	650	.6%	3.2%	9.8%	86.3%
1998	391	1.3%	0.0%	0.0%	98.7%
1999	623	2.1%	6.3%	4.0%	87.6%
2000	1017	2.1%	1.3%	2.6%	94.1%
2001	993	3.0%	3.6%	3.4%	89.9%
2002	870	3.3%	3.1%	7.7%	85.9%
2003	867	2.2%	2.8%	1.7%	93.3%
2004	2158	3.4%	6.7%	3.2%	86.6%
2005	1285	2.8%	33.2%	3.4%	60.6%
2006	902	3.5%	17.8%	3.3%	75.3%
2007	410	7.6%	12.7%	1.2%	78.5%
2008	635	5.0%	4.1%	0.3%	90.6%
2009	356	7.0%	12.6%	2.5%	77.8%
2010	324	3.1%	1.5%	1.5%	93.8%
2011	301	7.6%	6.0%	3.0%	83.4%
1999-2011	826	4.1%	8.6%	2.9%	84.4%

As you can see the troll fishery is NOT " by far the major harvester of the Taku stock" and in years where escapement fell below the Taku minimum goal of 19,000, (1999,2007), the troll catch DOES NOT "exceed the sport and the gillnet catch combined."

There are several conflicting statements or insinuations that are unsubstantiated. The statement, "**There is no management plan governing the catch of Taku River kings, even though most of the sport and troll catch occurs before the in-river escapement can be estimated**", misleadingly, insinuates that the department is managing without any knowledge what so ever, of the Taku run strength.

This is the focal point for the NEED for the adoption of this proposal and the need factor, incorrectly painted by Territorial Sportsman, does not exist.

The fact that the Taku terminal run forecast published in December and highlighted in this proposal itself, shows that the department has an indicator or trigger that provides degrees of protection for the Taku long before any Taku fishery can be executed. It is unrealistic to believe that the department would need the exact in-river escapement data to realize they need to manage conservatively in years with low abundance predicted in December.

There are additional protective measures and triggers in place to protect the Taku run despite what the Territorial Sportsman say. If the Taku run falls significantly below escapement goal for three consecutive years, by Pacific Salmon Treaty law, it becomes a stock of concern and drastic measures will go into affect. The Annex IV, Transboundary River chapter 1, says

"(xvii) When the escapement of Taku River Chinook salmon is below the lower bound of the agreed escapement range for three consecutive years, the Parties will examine the management of base level fisheries and any other fishery which harvests Taku River Chinook salmon stocks, with a view to rebuilding the escapement. "

The dept will manage accordingly if this happens and I am sure the spring troll fisheries and other fisheries will feel serious pain as a result.

The claim that the Taku run is rapidly declining is another non factual statement made in this proposal that has no data to back it up. Again, to get you to think there is a dire need for a change in the management of the Taku river king salmon. According to the department the final estimated escapement for the Taku Chinook in 2013 was 19,681 and in 2014 was 27,411 fish. This compiled with past escapement data means that the only years that fell below 85% of the escapement goal on the Taku Chinook run were 1975, 1983 and 2007. Territorial Sportsman's definition of rapidly declining must look a lot like the real world's definition of consistent, stable or well managed.

This stellar track record is a testament to this dept's management of this system. Another example of this department's superior management is that they have taken the initiative when substantial errors in the forecast versus actual terminal run size of the Taku run by the model began to show up. Over two decades of data now has shown the relationship between forecasted and actual escapement on the Taku system. Considering that data, the department, since 2013 has been adjusting the Taku run forecast by using a 5 year average of the differences of predicted to actual escapement of the Taku. This adjustment resulted in the 2015 terminal run forecast being lowered from 36,900 to 26,100 fish. A difference of 10,800 fish will substantially affect the dept's Taku management decisions in 2015. Again, this shows that the Taku management is indeed in good hands and should not be changed in any way. The saying "If it isn't broken, don't fix it" comes to mind.

The spring fisheries paragraph is so fraught with erroneous statements it is apparent that the proposer is completely uneducated on the management of the troll spring fisheries. The history of the spring fisheries existence, area restrictions, the hatchery percentage caps and levels, the reporting requirements are all completely disregarded by the proposer. And falsely, they claim the spring fishery is a free for all, unregulated fishery.

The Territorial Sportsman implies that the spring fishery has changed from what it was originally intended into something else. This spring fishery has morphed into EXACTLY what the board of fisheries intended it to be when it was adopted, nothing more.

The claim that the troll spring fisheries is a" potential problem for intercepting wild Southeast king salmon returns during years of low abundance" has no harvest data to back it up. From the data available above, the 2 years when there was a low abundance situation on the Taku and the spring fisheries were in place, the troll catch was not significant enough to be a problem. In the low abundance year 1999 the troll exploitation of Taku kings was 2.1% of the run while the sport harvest was 4% and in 2007 the troll harvest was 7.6% compared to sport 1.2%.

It seems that when evaluating their interpretation of potential problem fisheries, the Territorial Sportsman turned a blind eye to the fact that in the low abundance year of 1999 the sport Taku harvest was double that of the troll fishery. And in the years of higher abundance, the sport Taku harvest exceeded the troll harvest in 1996, 1997, 2000-2002, 2005 and 2006.

The management plan proposed by the Territorial Sportsman is extremely biased and unfair to the Trollers. The plan calls for the trollers to shut down the district 14 spring fisheries (April 15-June 30). This would cause the forfeit of almost all the traditional Taku run harvested by trollers, in addition to a major portion of their DIPAC hatchery king harvest. Because of this troll closure the sport fishery's harvest of DIPAC hatchery kings and likely that of the Taku River king will increase under their plan.

The peak of the Taku run occurs in late April/early May in the Juneau area. The Territorial Sportsman's plan seems to take this into account concerning the sport fishery by lifting the conservation restrictions on themselves June 15. However, their plan ignores this issue for the troller's part of the plan and they are to remain closed to the 30th of June. This is illogical considering the fact that the troll fishery is located farther away from the Taku river drainage and the run will pass by that area before they enter the Juneau sport fishing district. Closing the trollers down after June 15 makes little sense unless there are alternative motives to conserving Taku kings in mind. Keeping the trollers from catching the later run of DIPAC hatchery kings is most likely, that motive.

The peak of the Juneau sport fishery harvest of king salmon begins about the 9th of June and continues to about July 1 according to the ADF&G 2013 Sport Fish Harvest Rates report. http://www.adfg.alaska.gov/sf/fishingreports/index.cfm?adfg=r1.harvesteffort&area_key=4

This is largely due to hatchery fish returning to Juneau's DIPAC facility. In addition to no conservation burden after June 15, the proposer's management plan exempts their fishers from the conservation rules in several Juneau hatchery areas outlined in the plan.

These areas will have substantially more Taku and DIPAC fish traversing them, due to the trollers being shut down April 15-June 30. The April and May closure will pass Taku kings and the May/June portion will pass DIPAC and Hidden Falls hatchery kings thru to the Juneau area. This plan allows a 2 fish bag limit in these hatchery areas even during times when the majority of the fish in there would be Taku kings. Which is not only an enforcement issue being in close proximity to areas with a one fish bag limit, it is also contrary to the proposers innocent goal of conserving Taku kings. If anything this plan will augment the sport harvest in both Taku and DIPAC king salmon. When was the last time you saw a valid conservation plan for a fishery that resulted in an increase catch for that fishery?

In conclusion, not only is this proposal erroneous, biased and SELFISH to the point of disgust, the required NEED is totally unfounded.

Please look closely at this proposal and see it for what it truly is and OPPOSE 174.

Sincerely, Steve Merritt

Craig, Alaska

Support as Amended Proposal 208 written testimony- by Steve Merritt

Board of Fisheries:

I am in support of proposal 208 with the following amendment. 208 should be amended to the affect that in years where there is no directed king salmon fishery on the Stikine River the maximum mesh size is (6) inches only until July 1. After that date, the restriction should be lifted.

My reasoning for lifting the restriction on July 1 is that most of the trollers involved in the District 8 spring fishery will have moved to the outside coast for the July opening of the summer troll fishery. There will no longer be a need to protect the troller's access to the Anita Bay hatchery kings in the area after July 1. Additionally, this will allow gillnet fishermen versatility in fishing techniques when trying to harvest very large fall coho.

Currently, the District 8 drift net sockeye season opens in June unless there is an allowable catch of Stikine Chinook catch under the Transboundary Rivers agreement. Below are selections from the 2014 drift net District 8 management plan:

By regulation, the sockeye season could open as early as SW 24 at 12:00 noon, Monday, June 9.

Districts 6 and 8 are managed together due to their proximity.

The sockeye salmon fishery in both districts will be managed in accordance with the Transboundary Rivers (TBR) Annex of the Pacific Salmon Treaty. The Annex allows the District 6 fishery to be managed primarily for harvesting local Alaskan sockeye salmon stocks. Management of the District 8 fishery is based on the harvest of sockeye salmon of Stikine River origin.

Since there is no mesh restriction in regulation, the fishery is allowed to proceed with nets of any size. Most of the gillnet fisherman use king nets in the sub districts 108-10 and 108-20 of District 8, to harvest king salmon during these June openings. The use of a net that results in the target species swimming through it seems questionable as far as management intent is concerned. A mesh restriction of (6) inches would align this fishery with the management intent to harvest sockeye in years when there is no directed king salmon fishery. I also believe that since the Stikine sockeye run strength is evaluated on CPUE, the use of a king net is skewing this sockeye fishery's evaluation.

When there is no directed Stikine Chinook fishery in District 8, the use of a king net can only mean that the target species is Alaska hatchery kings. This has caused big problems for the spring troll fisheries being executed in the 108-10 and 108-20 sub districts. Once the District 8 driftnet season opens and several gillnet fisherman concentrate in these areas with a king net, the troll production drops significantly to the point of it being no longer feasible to fish.

SSRAA's Anita Bay kings traverse these sub districts at peak levels during the month of June. Trollers are catching anywhere from 50% to 75% hatchery kings in these districts at this time. Given the current allocation imbalance, where the trollers are averaging 11% below their minimum target range and the gillnet fleet is chronically over theirs, this fishery if 208 were adopted, would become even more significant in solving the problem.

Troll caught king salmon are uniquely valuable and offer the trollers a real opportunity to increase their allocated share because it is a price issue and not a volume issue. Trollers simply can not compete with the harvest rate of the nets on most hatchery produced species and receiving a higher price for a species makes up for that shortfall. Troll caught kings often bring $1 or more a pound than a net caught king.

Since the drift net fishery is averaging 13% above their target range, allowing king nets during the sockeye fishery has a double negative affect on the allocation imbalance as a whole. It is not just augmenting one gear group compared to another, it is taking fish from the group furthest behind their target and reallocating those fish to the gear group furthest ahead.

Under the current management regime, the District 8 sockeye fishery is also inconsistent with past department statements concerning the conduct of hatchery fisheries in mixed stock areas. In response to several past troll proposals requesting to expand area or time in the wild stock fishery to access Alaska hatchery fish, the department has stated:

The department OPPOSES the concept of allowing increased fishing time in a mixed-stock area outside of a THA, based only on the presence of hatchery-produced fish.

It is difficult to see how the current management practices of the District 8 driftnet sockeye fishery fall outside the scope of that statement. Allowing a king net in a mixed stock sockeye fishery where wild stock kings are likely present is, in fact, creating a mixed stock king salmon fishery to catch hatchery kings. To be fair to the troll fishery, this amended proposal 208 needs to be adopted. This will negate the unintentional appearance of a double standard in the department's management practices between the troll and driftnet fisheries.

To be fair to the department, this double standard is indeed unintentional because my research on this proposal found that the area manager of District 8 drift net fishery does not have emergency order authority to level a mesh restriction upon the fishery. So minimally, this needs correction if that is as far as this Board of Fish wants to go when considering this proposal. However, this would fall short of what should be done on this particular fishery. It would be better to put, as I amended, a 6 inch mesh restriction directly into regulation, since this fishery is under the Transboundary River agreement between Canada and the United States. This would give a clear path for future managers of this sensitive District 8 fishery to follow.

Steve Merritt

Craig, Alaska

Written Comments Opposing proposals 220 and 221- Steve Merritt

Board of Fisheries

I urge the Board of Fisheries to OPPOSE proposals 220 and 221. 220 involves moving an already unique line in the winter fishery further out to sea than it is. The rational is that there was and oversight from a previous proposal passed by the BOF and they fell short of the intent of the original proposal. It is debatable to as whether it was an oversight. Despite that issue, Yakutat currently enjoys the second most productive area in the winter fishery.

The Yakutat winter boundary line is unique to all other winter lines in the fishery and already gives that community advantages others do not have. It provides access to areas that normally would not be fished if the line were drawn cape to cape like all other winter boundary lines thru-out Southeast. The area as a whole is prime area because of being first in the path of the king salmon migration to their spawning rivers.

Winter harvest data will show that the kings caught in the winter fishery mostly start from above Yakutat and make their way down the coast as summer approaches. Consequently Yakutat, a small community, has the second highest harvest of winter kings in the fishery. Expanding the Yakutat line will increase their already substantial harvest of these fish. If anything, the Yakutat line should be moved in for a more equitable sharing of the resource when you consider population compared to harvest.

Since the winter fishery is capped at 45,000 fish, the communities that lay South of Sitka will most likely pay the price of that expansion due to the quota being harvested earlier. It is unfair to burden these communities the economic price of the Yakutat winter line expansion. On the issue of fairness the line should be moved in, if anything.

A familiar Yakutat AC argument in the past has been their community is suffering economically and needs more of the fisheries resource to make up for that. Small communities like Port Protection and Port Alexander are just as economically dependent on the winter fishery as Yakutat.

The rational that the productive areas within Yakutat's line are only located in fair-weather places and therefore the line needs to expand is bogus! The Yakutat line is no different than the rest of the winter boundary line in this respect. There are many winter fishing grounds that are fair-weather access only located thru-out Southeast.

The winter lines cut through the middle of many of the most favorite fishing spots on the coast. Yakutat AC thinks this is unique to their area and should be changed to gain back lost ground. To accommodate this logic the Board of Fisheries should expand all the winter lines. Where will it end?

Proposal 221 is based on some romantic exploration principle and it also expands winter fishing area in the Yakutat region. I oppose this proposal for many of the same reasons I oppose 220. The winter lines were put in place to control the catch rate of the winter fishery and an EXPLORATION retreat just wasn't one of the criteria considered!! If anything the addition of these new areas will have safety issues of traveling to and from them. 6 miles of open ocean in the winter months demand respect let alone 60 miles and there will be boats in peril making the trip back and forth to these areas.

The claim that there won't be any negatively impacts on anyone or the resource is again, completely false. The only community that won't feel the negative impacts of this expansion will be Yakutat. Please OPPOSE proposals 220 and 221.

Steve Merritt

Craig, Alaska.

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Submitted By
Thomas S. McAllister
Submited On
1/17/2015 4:10:19 PM
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Proposal 202 was written in response to a growing misunderstanding of Alaska's 58' maximum length limit for seine boats and concern that the law is unenforceable in the field by today's standards of measurement. It is the intention of this proposal's author to bring clarity to the regulation so that the law is enforceable and fishermen can plan with certainty their business going forward.

In recent years there has been an influx of foreign boats brought from Canada by US fisherman and employed in the SE Alaskan seine fisheries. There have been numerous complaints that these boats exceed Alaska's 58' length limit; also there are reportedly numerous boats of US construction that exceed 58', but to date enforcement officers have sighted none of the boats in question. This is due in part to the vagaries of the standard Alaska applies for measurement which is inconsistent with international and US Coast Guard's measurement standards. Mixing them up, we have a quagmire of confusing measurement rules that even few experts understand.

Further, there is a double standard in Alaska for licensing fishing boats and registering them to seine salmon. Under existing statute, the Commercial Fisheries Entry Commission (CFEC) assesses annual license fees based on the "Length Overall" (LOA) shown on a boat's Federal Papers and then issues a net area registration sticker for the area that boat is registering to seine salmon. However, area registration stickers are issued without predigest to length and it is up to The Department of Public Safety, Fish and Wild Life Officers to measure boats and enforce Alaska's 58' standard once the boat is fishing. The point is, CFEC is licensing boats based on the Federal LOA numbers and Fish and Wildlife is suppose to enforce Alaska's 58' limit once a boat is fishing by an entirely different standard.

Then there are the difficulties with measuring boats in the field which is not easily done with any degree of precision and, the vagaries of the state statute; "length overall" and "anchor roller" are not well defined making Alaska's law impracticable.

Alaska needs a measurement standard for its 58' seine boat limit that is consistent with USCG and international measurement standards and one that is enforceable at the time a boat registers to seine salmon in Alaska, not once it is fishing.

Proposal 202 proposes that each year, CFEC register boats to seine salmon using the "length overall" (LOA) as stated on the boat's federal papers. There should be no further need for enforcement once CFED has issued a boats license and registration for the year. This is consistent and simple for everyone to understand. The standards for length measurement exist in federal law and the measurements have already been done by certified marine surveyors in the business of measuring boats by enforceable standards.

In a way, this is exactly how Alaska does it now due to the fact that never has a citation been written and every boat seining salmon in Alaska shows 58' or less on it's Federal Papers (the only possible exception being boats that had seined salmon pre 1962 that were grandfathered into salmon seine fisheries).

Once the Board of Fisheries has thoroughly investigated the complexities of vessel measurement in State and Federal law, looked into the history of the existing laws and then ponders the future of Alaska's 58' limit, the fairest, most equitable and enforceable option is to use the numbers as stated for LOA on Federal papers.

Alaska should not be in the business of measuring fishing boats, especially our troopers; they have a much more important roll in serving and protecting the people and resources of Alaska than to do a job that has already been done by highly trained and federally certified marine surveyors. The CFEC is the proper gatekeeper for the length of Alaska's fishing fleets and it is there and in this way that I, the

author of proposal 202 propose Alaska's 58' limit be enforced.

Thank you for your consideration on this matter.

Thomas S. McAllister

Submitted By
Will Bousley
Submited On
2/4/2015 8:26:12 PM
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I oppose Proposal 209.

Our fishery is sustainable and effecient. We do not need to implement any changes, especially any form to over harvest our salmon. We are effective enough at our particalar fishery and must maintain and sustain what we have. Let's be good stewards of our fisheries and not move to greed.

Submitted By
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2/4/2015 8:33:51 PM
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I oppose Proposition 210,

There is no need for us to implement any new ways by which to harvest our salmon. By these means, we will be technically moving toward over fishing. This could lead to reduced fishing time and issues of over emphasizing our tactics to catch salmon. We have an effecient and sustainable fishery, that has taken decades to create. Let's maintain and sustain the good that we have fought so long for. Let's not get greedy, Conservation is paramount.

Taku River Old Timers King Salmon
Coalition
P.O. Box 210003
Auke Bay, Ak 99821
Jan. 19, 2015

Alaska Board of Fisheries
P.O. Box 115526
Juneau, Alaska 99811

SUBJ: Proposal 174, Management of Taku River King Salmon

Dear Board Memebers:

This group is comprised of about 14 old timers residing in the Juneau area that have several things in common. Each of us has fished on Taku River king salmon stocks for a minimum of 40 years with sport or commercial gear, or both.

We all remember the dismal king fishing situation around Taku in the 1970's when the stock was very depressed. We all survived the 12- year long closures that ADFG put on all the fisheries targeting Taku king salmon back in 1976. *Taku in let sport and drift gill net fisheries were closed and the troll fleet was moved out of district 11. We all witnessed the rebuilding of the stock as it benefitted from the closures, and we all had the best king fishing ever, after the fisheries were reopened.

At present, there is no management plan in place to direct management of Taku king salmon, or to provide adequate escapement back to the river. The last three years escapements have been near or below the minimum biological escapement goal. The last several years there have been too few adult spring kings moving back through Juneau area waters to provide even a reasonable chance of catching one and many anglers have quit trying. The current three fish bag limit makes a joke of the current management framework.

We all would request the BOF to develop a management plan for Taku River king salmon that would effectively move more fish into the escapement during years of low returns. Something needs to be done now or this important stock could continue to be depressed for years.

Proposal 174 states the lack of and need for a management plan specific to Taku River king salmon. We support this proposal in concept, however, would suggest

that all fisheries targeting the stock be included in a plan.

The goal of this plan would be to insure adequate escapement to the river in years of low returns. This plan would place conservative management on the fisheries targeting this stock in years of low projected returns but would have no effect on the fisheries during years of good projections. As preseason projections decrease, more conservative management would be placed on the fisheries.

Fisheries included in this plan would include the commercial troll and drift gillnet and local sport fisheries. Tools could include time and area closures of varying degree, reduced sport bag limits, and night time net closures. Trigger points for management strategy changes could be at 100%, 75% and 50% of the biological escapement goal. *Any Taku River king harvested from a run less than 100% of the escapement goal is essentially being taken from the escapement. Even if poor runs are due to poor marine survival, decent escapements are required for the run to rebuild in a timely fashion, once the marine environment improves.

We old timers have seen conservative management rebuild this very important stock of king salmon before and we want to see it again–soon. We ask the BOF to develop a management plan for Taku River king salmon to insure the viability of this run. We do not consider achieving the minimum biological escapement goal a success.

Respectively

Taku River Old Timers King Salmon Coalition

Leonard Parisien (by MB)

Dick Gregg (by DB)

Signatures:

Sean McKeown	Sport
Michael Bethers	Sport
Max Mielke	Troll/Sport
Robert Millard	Sport
Gary Hedges	Sport
Margaret Hedges	Sport
Dick Gregg	Gillnet
Kieth Kelton	Sport
Richard Deakins	Sport
Leonard Parisien	Canadian Gillnet
Marty McKeown	Sport
Bill Heard	Sport
Horst Schramm	Processor

Submitted By
Norman Elliott
Submited On
1/12/2015 5:40:35 PM
Affiliation

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Sterling, Alaska 99672

Dear Sir,

I am very much interested in having White fish introduced into our lakes on the Kenai Peninsula, as a sport fish. I have called twice to the Kenai office to see if we can develop a hatchery for white fish; But no one has returnred my call's. I know there are some white fish in the larger lakes and rivers, but i would like to see the Fish & Game Board develop a new fishery for white fish,(such as a hatchery in Alaska) for stocking some of the smaller lakes. White fish are very nutrional to eat and i don't believe they would be harmful to the salmon, trout, and dolly varden /artic char species. I ask that you seriously consider white fish stocking for Alaska's sport fisherman.

Thank you,

Norman Elliott

Submitted By
Ole Gundersen
Submited On
2/3/2015 10:58:23 AM
Affiliation
fishing boat owner

Dear Board,

I have been commercial fishing Southeast Alaska since 1980, gillnetting since 1988.

I feel proposal 209 & 210 would do short and long term harm to the industry as well as my family's income.

The type and depth of our nets have been a great management tool over the years.

We are proud of the ADF & G's management. We are asked all the time how the fish stocks are and my wife and I are proud to say the stocks are in great shape thanks to the ADF&G.

If we start using mono nets it will have a direct effect on wild stocks that are in a very delicate balance both for our own streams but also Canadian fish. If we start catching more Canadian sockeye **management will have no choice but to cut our time and area back** to preserve the balance with Canada.

A deeper net in the Tree point area **WILL** catch more sockeye it maybe only a 3-4 lb. fish but the treaty counts fish not lbs.

Proposal 210 is being sold as a way to save money on gear...that is ridiculous.

If someone is trying to save an estimated $800.00 on a net and ignore the effect it would have on allocations with the troll fleet's COHO, not to mention the bad press, they should not be fishing.

Thank you

Ole Gundersen

Submitted By
paul beese
Submited On
2/5/2015 9:16:44 PM
Affiliation
gillnet

opposed propsition 210

already commented forgot proposition # - no solid facts on why we need mono we are catching our allocation.

Submitted By
Paul Beeser
Submited On
2/5/2015 9:13:17 PM
Affiliation
gillnet

proposition 209 - oppose.

Ive already sent in a comment forgot to name proposel # - please do not allow deeper nets for pink salmon at the cost of the intire rest of the fisherie. also i am a usag memeber and there was only speculation about the idea, once again- i am in support of deeper nets but not just ":hey lets let everybody fish a 120 mesh net whenever they want to they can catch over our allocation of sockeye, and cost us many days of fishing. lets do some reaserch and see what the impact is first - my proposel is lets accecpt that we need to catch more pink salmon and come up with ways to do that without bycatch. if anything i would say- if nass(sp) river has had its ecapment and we are under allocation the hey through the 90 mesh on but if we are over lets keep the 60.

Submitted By
Paul
Submited On
2/5/2015 8:41:57 PM
Affiliation

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To whom it may concern;

My name is Paul Beese, I am 31 years old and Have been involved in alaska's salmon fisheries for 21 years of my life, starting out with my Dad when i was 9. The reason i have always been able to return to the harvest is because the southeast salmon fisherie has always been ***Sustanible.*** for the last six of those years i have been drift netting at tree point on my boat the Doxy -

The reason i write today is because of the proposal concerning deeper pink salmon nets. First off i am in favor of comming closer to getting our allocation of pink salmon. My concern for the fisherie is at this time is that without the proper data and reaserch and impact of deeper nets, we should not and cannot move farward with this proposel. with the greater picture in mind in distric 1 we have found a balance that has worked year after year to give us a steady return of fish. the main concern is Sockeye. right now we are letting sockeye by in a succseful way by useing a 60 mesh net and then fishing 2-5 days a week acording to pink salmon treaty. with deeper nets we run the risk of netting to many sockeye, this miscaulation could devistate the tree point fishery for not just one year but for un unforseen amount of time. costing us our livly hood.

to sum up = please do not allow deeper nets just because we are not meeting our pink salmon allocation. if it is a concern i can only give my blessing on the new depth of gear, as long as there is some solid data and facts that support the idea that pink salmon can be targeted without risking to much sockeye bycatch. please do not exept this proposel without the good of the intire fisherie in mind. our lives in your hands, but trusting Jesus Christ always -Paul Beese-

Submitted By
Paul Beese
Submited On
2/5/2015 8:51:35 PM
Affiliation
gillnet

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westport, Washington 98595

this comment is in responce to the proposel for the right for southeast gillneters to have the use of monofiliment web. My Name is Paul Beese i have been fishing in alaska for 21 years, the last six of those have been spent in district 1 gillneting on my boat the doxy. I have no argument as to why we should not use mono web, but the problem is the people who proposed this useage of the web have no real hard reasons or facts that we should use mono web. we are meeting our alocations- this means there is no factual reason that we should allow new geartypes into the fisherie, only preferance and greed. saving money is out of the question, because in ordor to stay competitive all fisherman will have to throw away there perfectly good 6 strand and buy mono costing a fortune. thank you for managing a sustainable fisherie. -Paul Beese-

Submitted By
Paul Pipes
Submited On
2/5/2015 4:51:01 PM
Affiliation
S.E.Alaska drift

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206 4990079
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Paulpipes@comcast.net
Address
4105 N.E. 60th Seattle Wash
Seattle, Washington 98115

My Name is Paul Pipes

I have been a comercial gillnetter for the past thirty years.

I have deep concerns against proposal 209 and would like my views to be known.

no on 209.

Submitted By
Paul Pipes
Submited On
2/5/2015 4:59:35 PM
Affiliation

Phone
206 7820279
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Paulpipes@comcast.net
Address
2615 N.W. 54th
Seattle, Washington 98115

My name is Paul Pipes

I am an active tree point comercial gillnetter for the past thirty years .

I wish it to be known that in my opinion proposal 210 would have a very

negative impact on our fishery and should not go through.

Alaska Dept of Fish and Game
Boards Support Section
PO Box 115526
Juneau, AK 99811-5526

February 3, 2015

Members of the Board of Fisheries:

I am an active sportsfisherman in northern Southeast Alaska. For well over three decades I have trolled, jigged, mooched, spin-cast, baitcast and fly fished these waters. I have caught all of the native species of salmon, as well as trout and steelhead on a fly rod, and many others species of local fish as well. Five years ago I purchased a commercial power troll permit and have since made trolling my primary occupation. I have token experience in several other commercial fisheries in the region as well and have participated in subsistence and personal-use fisheries too. I have served for ten years on the Sitka Fish & Game Advisory Commitee (including two terms as chairman) and continue to serve on this committee. I am a board member of the Alaska Troller's Association and the Chum Troller's Association. I greatly appreciate the wonderful opportunity for members of the public to provide so much input in the process of changing fishing regulations. Alaska's system of making the knowledge of local fishermen inherent to the process is truly extraordinary and extraordinarily valuable. I hope that the members of the Board of Fish will be able to acceptingly listen to those of us with decades of firsthand experience on these waters and then to apply their broader knowledge to craft the solutions best for the long term benefit of the fish and the local residents. I appreciate your taking the time to read my opinions below. Thank you.

Herring:

During the 2012 board cycle, the Sitka AC submitted a proposal asking the Board of Fish to designate a herring sanctuary in Sitka Sound closed to commercial harvest. The specifics of the area were left to the board and stakeholders to determine. The Board of

Fish ended up adopting the boundaries as described in an RC submitted by the commercial industry group (SEAS). The area was a very reasonable compromise with the promise of protecting a portion of the stock while allowing plenty of area open for seine harvest opportunity.

Herring are short-lived fish (at least in comparison to most local groundfish which have similar life histories). This makes herring stocks naturally highly volatile and thus makes it difficult to determine the effect of management changes until they have been in place for a long period of time. The Sitka Sound Sanctuary defined in 5 AAC 127.150 (a) (7) has only been in place for three seasons. It certainly is concerning that the Department's estimate of the Sitka Sound herring stock has plummeted from over 100,000 tons in 2009 (based on the ASA model-which is much more conservative than the 2008 spawn estimate of 247,000 tons) to 51,333 tons[1] in 2014 (again based on the ASA model-though in this most recent year, the spawn estimate was lower than this). However, these few years of data while worrisome, probably do not justify changes to the way that the Sitka Sound stock is managed since large fluctuations in herring stocks are to be expected in the short term.

During the 2012 salmon season, juvenile (young of the year) herring were seen in very large numbers in salmon stomachs throughout Sitka Sound- indicating high survival of larval herring that year. This year-class should make its first appearance in the herring fishery in 2015 and be nearly-fully-recruited in time to buoy the 2016 return. Hence, at this time I suggest that the Board of Fish resist attempts to change management of this fishery (**Oppose Proposals 117-122**) so soon after creating the sanctuary in order to see how well that major change works.

The board should however, remain open to the possibility that emergency action may be needed via Agenda Change Request should the 2012 year class fail to materialize (i.e. the increasingly abundant humpback whales may have eaten this year class over the last two years) and the sharp downward trend continue.

[1] ADFG data supplied to the Sitka AC on December 10. 2014.

Similarly I also **oppose proposals 114-116** which would restrict the ability of the department staff to use their best judgment regarding whether or not to open a fishery. Herring forecasts are based on year-old data (spawn deposition from the previous year) with no way of estimating natural mortality over the previous 12 months. Not only is estimating the number of eggs laid a tedious task, but the resulting estimate is inherently imprecise due to the very low sampling rate. The department staff should retain authority to use their judgment when the best-available biomass data is so imprecise.

Note that these proposals (114-116) highlight a (political- not necessarily biological) weakness in the current management formula that calls for a substantial fishery if the biomass estimate is just above threshold, but no fishery at all if the estimate is just barely lower. Hence when near this threshold, a small change in the biomass estimate (which is an imprecise estimate) can literally make or break the fishery. It is the discontinuity in the biomass-harvest formula that is responsible for these proposals. If this was a continuous relationship, these proposals likely would not have been submitted.

Groundfish:

I **support proposal 136** to put reasonable limits on personal use blackcod (also called sablefish), a top-rate food fish for which currently there are no personal use limits. In an ideal world folks who utilize this opportunity unique to Alaskans would show reasonable restraint and such a proposal would not be necessary. Unfortunately, I have heard multiple rumors of abusive excess in the blackcod fishery, hence the need for this proposal. Three years ago, the Sitka AC discussed the merits of submitting a similar proposal. To make a personal use or subsistence blackcod trip is a substantial undertaking due to significant distance away that most people must travel and the great depths that are fished. Those members with experience in the fishery tended to agree that for the fishery to remain a legitimate opportunity, permit stacking would have to allowed (so that the fuel bill could be split) and the bag limit (and hook limit if there was one) would have to be generous enough to allow somebody to harvest up to two years supply in a trip. (Blackcod freeze unusually well, so it makes sense to get this much at once.) Proposal 136 meets these criteria. The 50 fish limit is equates to roughly twice the pounds of

sockeye allowed under a typical subsistence permit and the proposal specifically allows for a up to four permits to be fished simultaneously.

I **oppose proposal 139.** The proposed requirements that the lines from mechanical jigging machines must be "oriented vertically" and "may not be pulled through the water or deployed while the vessel is underway" are nearly impossible to fully comply with. Wind and currents are nearly always acting on either the boat, or the gear, or both. This alone will make the line deflect from the vertical orientation. At times these forces are strong enough that fisherman has to put the boat in gear in order to stay in the same position relative to the bottom. This means that the lines are being pulled through the water and the boat is underway even though the boat is just staying in one location.

This proposal has the effect of imposing a maximum speed limit of zero on a jigging boat. Enforcement of this is impractical at best.

While these objections might seem to be outside of a "common sense" interpretation of the regulation, I recall that some participants in this fishery were given citations for using bait, a few years back when the regulation only said that "hooks", but not specifically "baited hooks" could be used. While the language was modified to make the use of bait clearly allowed[2], that the BoF needed to take this action in the first place shows that unfortunately the common sense interpretation is not always the one applied on the fishing grounds.

It should also be noted that at the same BoF meeting that the word "baited" was added to 5 AAC 39.105, the portion of that regulation that is similar to the language of this proposal that states "A mechanical jigging machine must be attached to a vessel registered to fish…" was amended to clarify that this only applied when the jigging machine was in use.[3] Having just been faced with the absurdity of having to clarify that it was permissible to put bait on hooks, the BoF and the department (Proposal 167 from

[2] See proposal 167 from statewide BoF meeting Anchorage 2010.
[3] See Summary of March 16-20, 2010 BoF Statewide Finfish Meeting available on-line at BoF webpage.

2010 was a department-sponsored proposal.) realized that as currently written 5 AAC 39.105 (and the language of Proposal 139) would technically prohibit the removal of the machines during other fisheries or for maintenance. A fisherman could be found in violation for having a jigging machine in his truck! Given the history of overly literal enforcement on this fishery, proposal 139 as written will potentially prohibit all fishing with jigging machines.

This proposal should also be compared to proposal 203 which also seeks to impose a maximum speed limit on a fishing boat. It is clearly internally inconsistent for anybody to claim that the enforcement of the speed limit under one proposal is viable, but enforcement of the speed limit under the other is impractical.

I **oppose proposal 140** since as written since many of the fisheries/districts that it would apply to do not currently reach their allocation and this proposal would further reduce harvest. Specifically, lingcod bycatch in the salmon troll fishery in Central Southeast Outside (CSEO) is the fishery that I participate in that would be affected by the proposal. The allocation for this fishery was established based on historic catches from years when the Sitka LAMP was open to lingcod bycatch. Now that the LAMP is closed to troll bycatch, the harvest in the fishery is generally well short of the allocation.

Even if applied just to the fisheries that routinely reach their allocation (which would make for difficulty in terms of enforcement), this proposal would shift a higher percentage of the biomass of the harvest from males to (generally larger) females. This could be biologically suboptimal.

I submitted and **support proposal 141**. As I mentioned in my comments on proposal 140, the Sitka LAMP is currently closed to retention (and possession) of troll bycatch lingcod. While there are good reasons to allocate most of the fish closest to town for local catch and consumption, the existing regulations are excessively restrictive in this regard. Local trollers commonly fish near the LAMP boundary. Sometimes the coho are inside of

the line, other times they are well beyond. Chum trolling is usually best inside of the LAMP line. Given that a troller on a multi-day trip doesn't know which side of the line he may want to fish later in the trip, the current regulations require that he release any lingcod (regardless of whether he is inside of outside of the LAMP) in order to retain the ability to fish inside the line later.

The 2012 BoF proposal that would have entirely rescinded lingcod troll bycatch regulations within the LAMP failed due to concerns that trollers might target lingcod within the LAMP. Proposal 141 addresses that concern with a highly restrictive two fish limit. To further address this concern, the proposal allows the department to require that these two fish be home-packed and not sold.

Note that, if department staff or enforcement is uncomfortable with this provision, I have no objection to having it removed. My initial concerns that led me to include it (conservation and allocation concerns) were greatly allayed when department staff provided the Sitka AC with data indicating that bycatch in the Subsistence Halibut fishery is already by far the largest harvester of lingcod in the Sitka LAMP with half to three-quarters of the annual harvest[4].

As mentioned under discussion of proposal 140, the CSEO troll bycatch lingcod allocation has rarely if ever been caught since the closure of the LAMP. This proposal would allow some of this persistent underage to be harvested.

I **oppose proposal 143** as being unduly burdensome on casual sportfishermen. Requiring all sportfishing vessels to carry a rockfish release mechanism is unnecessary. Some people sportfish out of very small craft- canoes, kayaks, etc. Many people fish but a few times a year. A large portion of the sportfish effort occurs in areas that have very few rockfish- places were it is rare to catch even one, let alone enough to be over-limit. For instance per the ADF&G's Sport Fish Survey[5] the subcategory ("Boat-Saltwater near Juneau") shows that 14,842 anglers fished for 59,497 days but caught only 4,210 rockfish. That's one rockfish for every 14 angler-days. "Boat-Saltwater near Juneau" is

[4] Per figures presented to Sitka AC December 18, 2014, the recent average harvests by gear group are: Commercial longline bycatch: 1,645 lbs/yr, Sport:8,500 lbs/yr, Subsistence halibut by-catch:15,400 lbs/yr.
[5] See https://www.adfg.alaska.gov/sf/sportfishingsurvey/index.cfm.

the most-fished subcategory in the most-fished geographic region (Juneau) in Southeast, but these are by no means the only subcategories or geographic regions with so few rockfish that exceeding one's limit is virtually impossible.

I **support an amended version of Proposal 144.** Research indicates that some species of rockfish have much higher survival rates than others[6]. It would be quite appropriate to allow the release of abundant, less desirable species that are highly likely to survive (like coppers and red-stripes) but not appropriate to sanction size-grading of high-value yelloweye. Furthermore, given that some anglers are not interested in retaining any rockfish, I support allowing them to release their rockfish, (perhaps with the provision that they are counted against their bag limit to prevent people "changing their mind" later when they get a big yelloweye.)

Sport and Subsistence:

I **oppose proposal 157**. The current 28" size limit was selected to protect immature Chinook. It has long been known that maturing salmon are larger than immature salmon of the same age.[7] The 28" minimum size limit was selected to allow harvest of most of the 3 year old (2-ocean) Chinook that will be spawning that year, while protecting most of the immature 3 year olds that will be around to be caught the following year when they are larger.

While there has been data suggesting that Chinook are not as large today as they once were, most of this difference is explained by fish maturing at a younger age (i.e. more fish are spawning as 3 year olds, and fewer as 4 and 5 year olds; hence the average Chinook is younger and therefore smaller than in the past) and by the fish growing more

[6] See *The effects of barotraumas on the catch-and-release survival of southern California nearshore and shelf rockfish (Scorpaenidae, Sebastes sp.)* by Erica T. Jarvis and Christopher G. Lowe published in Can. Journal of Fisheries and Aquatic Sciences, 2008, 65(7):1286-1296, 10.1139/F08-071

[7] See ADF&G Informational Leaflet 217- Optimization of Alaska Troll Fishery Chinook Salmon Yield: A Model of the Effects of Size Limits, Gear Restrictions and Time-Area Closures by Fredrick C. Funk for an early (1983) reference. Per Figure 1of Funk's paper, fall Chinook that spawn as 3 year olds reach 28" at 25 months at sea. Those that spawn as 4 and 5 year olds don't reach legal length until 30 months and 37 months respectively. A copy of Figure 1 has been included as Supplemental Material at the end of this letter.

slowly during their later years. Data compiled by ADF&G's Leon Shaul, shown on Figure 1 on the following page shows that for their first two years in saltwater, Chinook

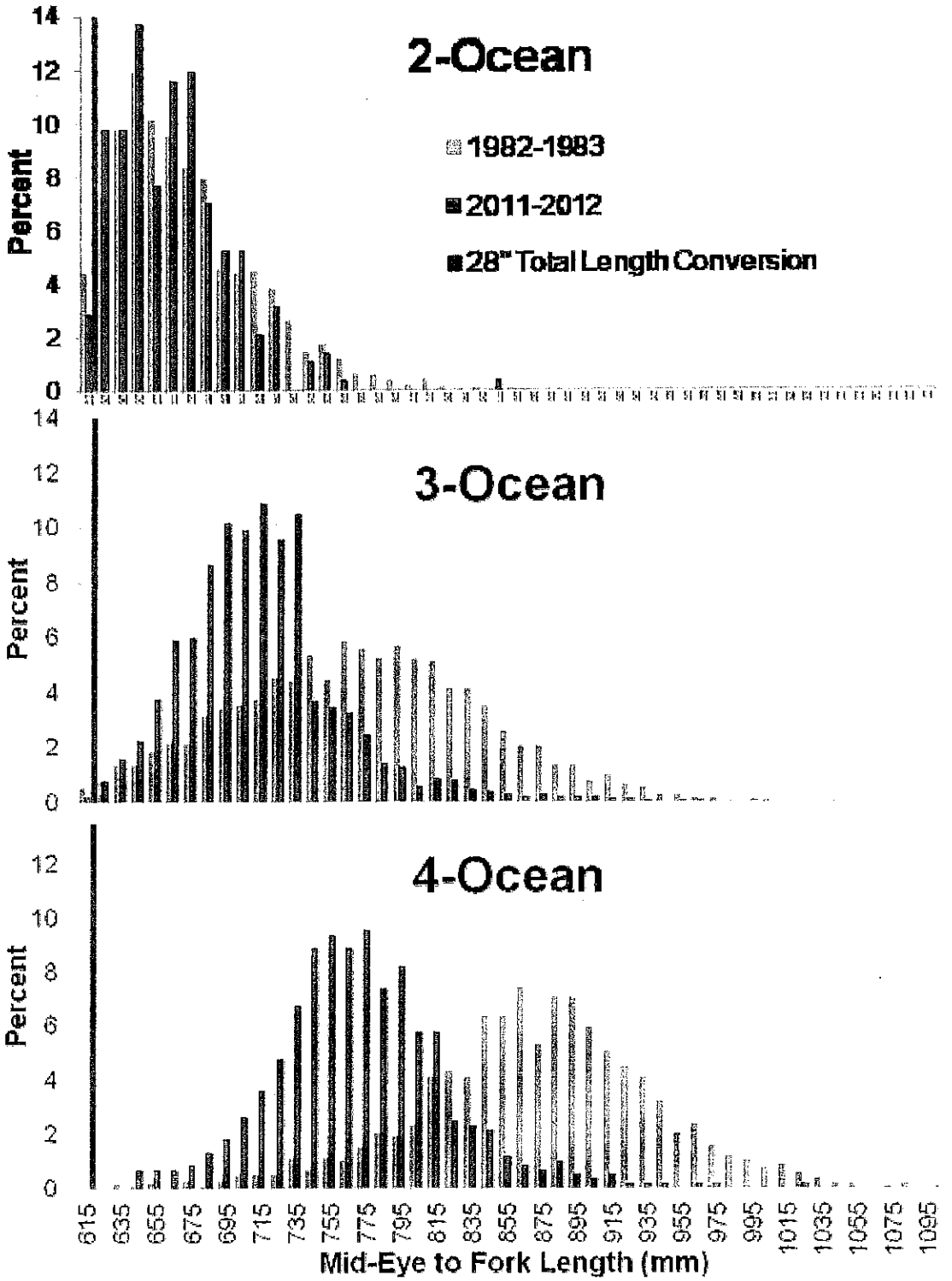

Figure 1: Change in Length at Age Distribution of various age Chinook caught in SE troll fishery. Graphs provided by Leon Shaul (ADF&G).

still grow at the same rates as they have in the past (and hence still reach 28" at the same age). Only in the third and fourth years is their growth slower than in the past. Hence, despite the overall smaller average size of king salmon, 28" remains an appropriate minimum size.

It should also be noted by the board that this proposal to lower the 28" size limit on sport-caught Chinook is highly allocative between inside fishermen and outside fishermen. The northern inside waters of Southeast tend to have relatively more very young Chinook (fish very near the 28" limit) and the outside waters tend to have more older, larger Chinook.

I **support Proposal 168** to encourage the harvest of stray king salmon in the freshwaters of the Juneau road system. None of these systems have wild Chinook, but DIPAC hatchery fish occasionally stray into local streams. They should be removed from the streams as rapidly as possible before they can cause problems for the wild salmon that are supposed to be there. As an example, about 15 years ago I saw a dozen or so Chinook in a single pool in upper Montana Creek (which flows into the Mendenhall River which enters saltwater near Fish Creek, a DIPAC release site). I don't know if these fish were hatchery strays, or the offspring of strays, but they were clearly non-native since Montana Creek has never been known to have a wild run. A similar regulation has been in place in the Sitka area for several years and I am unaware of any problems that have arisen.

I **support proposal 169** to remove the spring closure on sport Dolly Varden fishing at Eagle Beach. This fishery is very near the mouth of Eagle River where dollies that have spent the winter in Windfall Lake first enter the saltwater. Windfall Lake is one of the most productive dolly-producing systems in the area. The minimal amount of additional mortality that rescinding this closure would cause is well within the ability of the Windfall Lake run to absorb. This closure could have been lifted may years ago. It makes little sense to provide special additional protection for of one Juneau's most productive systems.

Commercial Salmon:

I Oppose Proposal 174 (Taku King Salmon Management Plan) on many grounds. To begin with, several of the statements made in the proposal are not substantiated by historical data and need to be corrected for the record. Firstly the troll fishery is NOT "by far the major harvester of Taku stock." Between 1999-2011 the exploitation rate of the drift gillnet fishery has averaged more than twice that of the troll fishery[8]. Despite this fishery being responsible for more than half of the total Taku Chinook harvest, the proposed management plan does not subject the drift gillnet fishery to any restrictions.

Nor is the troll catch of Taku kings "usually two to six times the sport catch." In the 13 years span of 1999-2011 (This is the most recent data available from the CTC, but earlier years also show trollers catching only a small fraction of the run.) the troll exploitation rate has been double the sport rate only 5 times (and then just barely). In five other years, the sport fishery actually caught more Taku kings than the troll fishery[9].

Neither does the troll catch "routinely easily exceed the sport and gillnet catch combined." This has happened only twice in the same time period. In the 1999-2011 period, the Taku Chinook escapement averaged 84.4%. The entire troll (spring, summer, and winter) harvest averaged 4.1%; the drift gillnet fishery took 8.6%; and the sport fishery 2.9%[10].

Based on CWT sampling, the spring troll fishery in District 14 that this proposal would eliminate accounts for only about 1.3%[11] of the total return of Taku Chinook. There is no reason to take such drastic action for such a small result.

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[8] Per the *Pacific Salmon Commission's Joint Chinook Technical Committee (CTC) 2013 Exploitation Rate Analysis and Model Calibration Volume Two: Appendix Supplement* Appendix C42. A copy of Appendix C42 is included as Supplementary Material at the end of this letter.

[9] Ibid

[10] Ibid

[11] Applying sampling rate expansions to the recovered CWTs shows that about 30% of all of the troll-caught Taku kings in the 1999-2011 time period were caught in District 14 spring fishery. Since the total troll exploitation rate was 4.1%, the portion of the total run taken during the spring troll fishery in District 114 is 30% of 4.1% or 1.3%.

I understand that the proposer is considering amending the proposal to change the specifics of the management plan and to include the Chilkat River run as well. My objections to this proposal go beyond the specifics of the proposer's plan and the erroneous claims in the problem statement. The main reason for my opposition to this proposal is that there is no need for any major change of harvest management. Currently, the CTC's considers both the Taku and Chilkat River stocks to be "reasonably healthy."[12] Both of these runs already have low exploitation rates with escapement accounting for approximately 85% of the returning fish. The harvest rate is already so low, that no reasonable fishery restrictions could increase the escapement significantly. Unless there is an emergency situation (which is far from the current case), there is no conservation-based reason to consider management changes.

If any change ought to be made to Taku Chinook management it is to provide the troll fleet with a meaningful directed fishery accessing these fish in years of high abundance. In those years driftnet, sport and troll all theoretically have increased access to a directed fishery. The drift gillnet fleet gets weekly openings in Taku, Juneau area resident sport anglers are permitted to use two rods throughout the Juneau area and the troll fleet gets a few days per week to fish on a portion of the backside of Douglas Island and the mouth of Taku Inlet. However, the directed Taku commercial troll fishery is too limited in time and space to be effective. Fewer than 50 kings have been caught in this fishery during the four years combined (2005, 2006, 2009 & 2012) that this management has been in effect. During this same time period the drift gillnet fleet has landed over 36,000 kings during their directed fisheries.

I Oppose Proposal 175 and Support Proposal 176. Both Proposals 175 and 176 recognize that the historic catch of Southeast Enhanced salmon has not been consistent

[12] Page 32 of the CTC's *Annual Report of Catch and Escapement for 2013* states that "The Chilkat River stock is reasonably healthy with annual escapements of at least 85% of the goal in all years except 2007." Page 37 of the same document states that "The Taku river stock is reasonably healthy with annual escapements of less than 85% of he goal occurring only three times since 1975 (1975, 1983, and 2007.) Exploitation rates on the stock have never exceeded the MSY exploitation rate level." Note that the CTC uses 85% of the lower bound of the target range as the level of concern- this is a far more reasonable trigger level than using the middle of the target range as the proposer is suggesting.

with the allocation prescribed by the Board of Fisheries in 5 AAC 33.364. The proposals seek two radically different ways of addressing this problem. It should be noted that the summary for proposal 176 that Board Support provides is inaccurate. Proposal 176 does NOT seek to change the allocation of Southeast Enhanced salmon. Rather it proposes the creation of official release and harvest plans to guide the correction of the troll imbalance in future years.

Proposal 175 would "solve" the troll imbalance by changing the "fair and reasonable[13]" allocation that was arrived at by industry-wide consensus back in 1994[14]. This is not only a bad idea, but it is based on a faulty premise. The persistent troll under-harvest of hatchery salmon from northern Southeast hatcheries is NOT a sound reason to conclude that there is something the matter with the allocation range itself. Trollers in Northern Southeast have never been given a reasonable opportunity to catch these fish, hence there is little wonder that the troll share has been smaller than the BoF intended. To use the past over-harvest by the gillnet fleet as a justification for denying trollers the allocation of future fish would set a very bad policy of doubly rewarding over-harvest with not only the excessive fish caught but also future fishing rights as well. Allowing a gear group to go over their allocation in the first place is bad enough, but to use that overage as justification for the reallocation of future fish provides a terrible incentive structure. This is the precise conclusion that Judge Rosemary Collyer came to in *Van Valin v. Locke* (a federal lawsuit over limits placed on the charter halibut fleet) when she wrote "(For the purposes of setting an allocation,) where overfishing by one group in recent years is the precise concern that the regulation intends to address, it makes sense to disregard (that)

[13] 5 AAC 33.364 begins with "(a) The purpose of the management plan contained in this section is to provide a fair and reasonable distribution of the harvest of salmon from enhancement projects among the seine, troll, and drift gillnet commercial fisheries, and to reduce conflicts among these users, in the Southeastern Alaska Area." The entirety of 5 AAC 33.364 is included as Supplementary Material at the end of this letter.

[14] The Southeast Alaska Allocation Taskforce for Enhanced Salmon comprised of two gillnetters, two seiners and two trollers through a series of public meeting in 1991-1993 developed the Fourteen Guiding Principles behind the allocation of enhanced salmon in Southeast. The Fourteen Principles were adopted as official Findings in 1994 by the Board of Fisheries. This findings, also referred to as 94-148-FB contain the reasoning behind 5 AAC 33.364. A copy of the findings is included as Supplementary Material at the end of this letter.

data."[15] The Board of Fish should similarly disregard this proposal to punish the troll fleet for not having had adequate harvest opportunity in the past.

Proposal 176 on the other hand would direct NSRAA and DIPAC to provide a road map for the fair and reasonable allocation of harvest that the BoF laid out in 5 AAC 33.364. It should be noted that the troll share of NSRAA and DIPAC production consistently lags well behind both the troll share of SSRAA's production and the 27-32% allocation deemed "fair and reasonable" by the BoF when they adopted 5 AAC 33.364. For example, using preliminary 2014 figures the troll share of SSRAA's production was 31% while the troll share of NSRAA production was 22% and the troll share of DIPAC production was only 1%![16]. SSRAA's success proves that complying with the allocation set forth in 5 AAC 33.364 is entirely feasible.

Proposal 176 is uniquely flexible in that rather than asking the BoF to mandate that a specific fishing opportunity be provided to trollers, the proposal allows the northern RPT and the hatcheries to develop harvest plans that will best work in their areas. Provided that the boards take this obligation seriously, it should result in the solution that is least disruptive to other gear groups while attaining the allocation objectives approved by the Southeast Alaska Allocation Taskforce and the BoF in 1994.

Undoubtedly there will be those who object to increasing the troll share to the allocated range-since due to the nature of percentages another gear group's share must go down for this to happen. Some other fishermen might think that trollers some how don't deserve the share that 20 years ago was universally considered to be "fair and reasonable." As a rebuttal to that argument, I would like to offer that all commercial salmon fishermen in Southeast have long been paying 3% of the ex-vessel value of their catch to fund enhancement projects. Between 2004-2013, despite catching only 18% of the hatchery

[15] See page 19 and 20 of Case 1:09-cv-00961-RMC Document 40 Filed 11/23/09. A copy of these pages has been included as Supplementary Material at the end of this letter.
[16] From slide 7 of the presentation that NSRAA's Chip Blair gave at the 2014 fall NSRAA meeting titled "NSRAA 2014 Salmon Season Recap 2015 Forecast." SSRAA: $5M troll out of $16.1M total; NSRAA: $1.8M troll out of 8.0M total; DIPAC: $132,000 troll out of $11.3M total. These values are based on preliminary operator estimates.

fish, trollers have been paying 27% of the taxes. This is right in line with the 27-32% troll allocation range. Drift gillnetters on the other hand, with an allocation range of 24-29% have caught 40% of the hatchery production despite paying only 20% of the taxes[17]. (Note that the 20% includes the taxes on the over-harvest by the gillnetters, though to be consistent with the logic of Judge Rosemary Collyer, the gillnet fleet shouldn't be lauded for paying taxes on fish that they weren't supposed to catch in the first place.) A comparison of share of taxes paid to value of hatchery-produced salmon harvested is presented graphically in Figure 2 below.

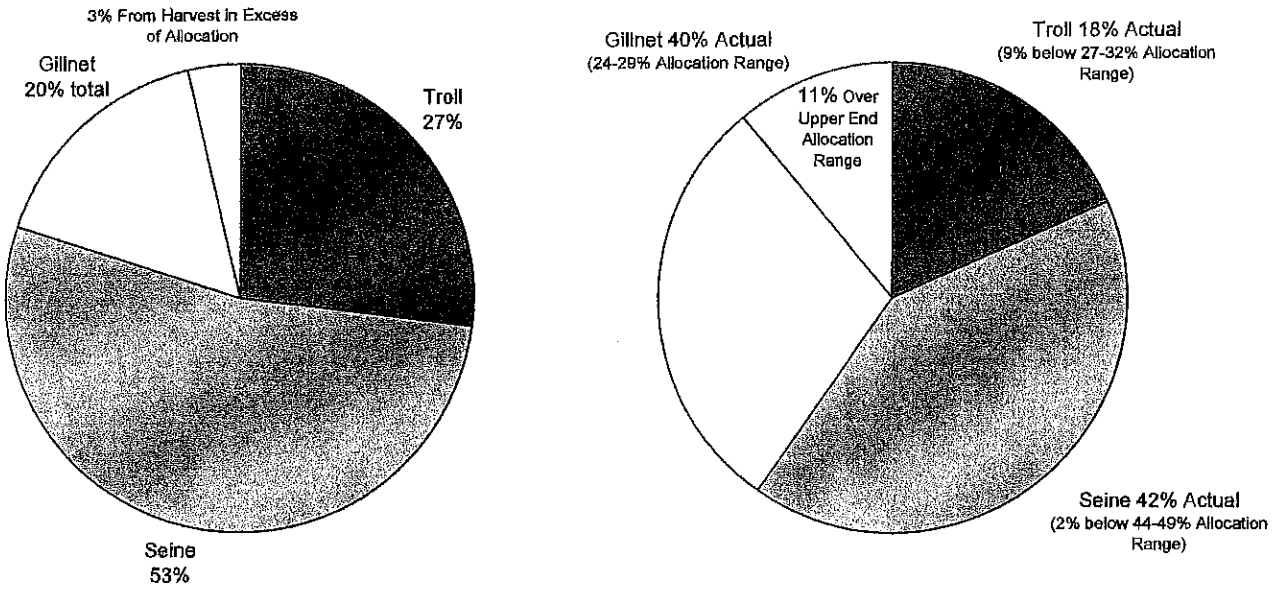

Figure 2: 2004-2013 Share of Hatchery Taxes Paid and Enhanced Salmon Caught

Another argument that I have heard raised against increasing troll harvest opportunities is that on paper the troll fleet has a lot of times and places that they are allowed to fish and that hence they some how don't deserve any more. The premise may be true, but the conclusion is faulty. Sure, most troll fisheries are open seven days per week continuously,

[17] Taxes calculated as 3% of each fleet's total gross earning from CFEC's Basic Information Table. Value of hatchery harvest taken from slide 5 of Chip Blair's "NSRAA 2014 Salmon Season Recap 2015 Forecast" presentation from the 2014 fall NSRAA meeting. A copy of the latter is included as Supplementary Material at the end of this letter.

in comparison to net fisheries that historically have had weekly openings and closures. A full week of fishing is what historically has been necessary for trollers to make a living. Troll catch rates are such that this is biologically sustainable. There are a lot of waters open to trolling too, but a boat can only be in one of them at a time. What matters to an individual troller isn't all of the places that he legally could be fishing, but how good the fishing is in the place that he is at.

The first Guiding Principle in the *Report of the Southeast Alaska Alloction Task Force for Enhanced Salmon* developed by industry consensus and adopted by the Board of Fisheries as Findings 94-148 FB states that,

> *The primary goal of the Southeast Alaska salmon enhancement program is to provide additional fishing opportunities and revenue...*

The majority of revenue from enhanced salmon in northern Southeast Alaska comes from chum caught in SHAs and THAs. This is where the bulk of the "additional fishing opportunities" from hatchery-raised salmon have been created. The argument about trollers already having plenty of opportunity falls flat when one looks at the allocation of these prime fishing grounds. In 2013, trollers only caught 2,110 chum in the four northern terminal areas combined, out of the all gear total of 3.7 million[18]. This shows how inequitably the "additional fishing opportunities and revenue" have been shared.

Comment on proposals 182-183 & 185-186: The 1994 Findings of the Board of Fisheries (94-148-FB) provides 14 Guiding Principles behind 5 AAC 33.364 the Southeast Alaska Area Enhanced Salmon Allocation Management Plan. These Guiding Principles are basically an "operations manual" for 5 AAC 33.364. Principle 13 states that "When adjustments are deemed necessary to the distribution of the harvest (of enhanced salmon) to meet allocation percentage goals, the following tools should be used: (1) special harvest area management adjustments..." The five-year average of the

[18] See discussion of Proposal 188 for more information.

gillnet fleet has been over their allocation range for at least three years[19] triggering Guiding Principle 9. The seine fleet similarly has been under their allocation range for at least three years as measured over a five-year average[20]. Proposals 182-183 & 185-186 which seek to decrease drift gillnet opportunity in hatchery terminal harvest areas and increase seine opportunity would seem to be a textbook application of Principle 13. They *almost* are. What is missing from these proposals is making the same sort of adjustment to benefit the troll fleet. The troll fleet is farther below their allocation range[21] than the seine fleet and the troll fleet has been below range longer than the seine fleet, hence any plan to take action addressing the seine imbalance should also include the troll fleet.

I **oppose proposal 187** to open the Southeast Cove THA management plan to the drift gillnet fleet. In 1994 the Board of Fisheries adopted Findings 94-148-FB which lays out 14 Guiding Principles for management of enhanced salmon in Southeast. Guiding Principle 9 recognized that "the distribution of enhanced fish (would) vary widely from year to year." Hence management changes "should be implemented only after discrepancies are determined to exist in the five year average for three consecutive years." The driftnet fleet has been so far above their allocated range in 2012, 2013 and 2014 (39%, 36% and 47% respectively[22], in comparison to the 24-29% allocation range) that their 5 year average cannot be made to go below their range for three consecutive years until 2019 even under the absolute worst-case scenario mathematically possible[23].

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[19] According to a slide 10 of a presentation given by NSRAA's Chip Blair at the 2014 fall NSRAA meeting titled "NSRAA 2014 Salmon Season Recap 2015 Forecast" which utilizes ADF&G Final Allocation data for 1994-2012, ADF&G preliminary 2013 data and preliminary operator estimates for 2014, the gillnet share has been 40.9% over the last 5-year period. The gillnet allocation per 5 AAC 33.364 is 24-29%. The gillnet 5-year average has not been this low since 1999-2003 and has been over 38% ever since 2003-2007. A copy of this slide has been included as Supplementary Material at the end of this letter.

[20] Ibid; The seine share over 2010-2014 period was 41.2%- slightly below the 44-49% allocated to that fleet under 5 AAC 33.364. The seine fleet was last within that range during the 2000-2004 period and has been around 41% since that time.

[21] Ibid; The troll share over the 2010-2014 period was 17.9%. This is well below the 27-32% allocated to the trollers. The troll fleet has not been within the 27-32% range over any 5-year period since the early 1990's and has not been above 22% over any 5-year period since 2001-2005.

[22] See slide 5 of a presentation given by NSRAA's Chip Blair at the 2014 fall NSRAA meeting titled "NSRAA 2014 Salmon Season Recap 2015 Forecast."

[23] Even if the gillnet fleet did not catch a single enhanced fish in 2015 and 2016, the five-year average for 2012-2016 would still be 24.4% (i.e. within the 24-29% range allocated to the drift gillnet fleet). Not until 2017 could the gillnetter's 5-year average possibly fall below their range. Hence not until 2019 could the 5-year average possibly be below range for three consecutive years. Of course it is utterly implausible that the gillnet catch would actually be zero. Using even any realistic catch forecast –no matter how pessimistic, it

Given that the Board of Fisheries is assured to meet again on Southeast/Yakutat issues before this time, there is no need to add the drift gillnet fleet to the Southeast Cove THA Management Plan as requested by proposal 187 at this time as it is not possible for the gillnet fleet to qualify for extra opportunity.

I **support proposal 188** on the other hand. It is a textbook example of what 5 AAC 33.364 The Southeastern Alaska Area Enhanced Salmon Allocation Management Plan is all about. Section (c) of the plan reads:

> *(c) If the value of the harvest of enhanced salmon stocks by a gear group listed in (a) of this section is outside of its allocation percentage for three consecutive years, the board will, in its discretion, adjust fisheries within special harvest areas to bring the gear group within its allocation percentage.*

In this case, trollers have been well below their 27-32% allocation range set out in (a) of the plan for many years. The 5-year troll average (which per (b) of the plan is how imbalances are to be measured) has been below the allocation range since at least 1994-1998[24] clearly more than long enough to trigger the "adjust(ment) of fisheries within special harvest areas" as per this regulation.

In the past trollers have unsuccessfully brought proposals to the RPT and NSRAA to significantly increase troll access for chum. This is because of how financially dominant chum have been in recent years. (79% of NSRAA's 2014 commercial harvest was chum[25], as was 93% of DIPAC's[26]) Current regulations have hamstrung trollers in terminal harvest areas where returning chum are potentially most easily caught. Of the four hatchery chum terminal fisheries in northern Southeast, Boat Harbor THA is open

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is clear that only substantial regulatory changes by the BoF will reduce the gillnet catch to their allocation range.

[24] See slide 11 of NSRAA's Chip Blair at the 2014 fall NSRAA meeting titled "NSRAA 2014 Salmon Season Recap 2015 Forecast." A copy of this slide has been included as Supplementary Material at the end of this letter.

[25] $14.2M of chum out of $18M total - see table and accompanying chart titled "NSRAA Ex-Vessel Value Estimates by Species" on Page 2 of "*NSRAA Commercial Value by Species and Gear*" report dated 1/16/2014 available from NSRAA website under "Data" section. A copy of this page is included as Supplementary Material at the end of this letter.

[26] Table 4 on page 37 of the December 2014 DIPAC Board Meeting Book, shows that $10.5M of the $11.3M total commercial ex-vessel value of DIPAC salmon was from chum. Note that 2014 had the lowest DIPAC chum return since 2005.

only to drift gillnetting (260,000 chum caught in 2013). Amalga Harbor SHA is open only to purse seining (over 1M chum caught in 2013). Troll opportunity at Deep Inlet THA is minimally effective (580,000 chum caught seining, 690,000 chum caught with drift gillnets, but only 1,900 caught trolling in 2013) since troll openings are but single days that always come right after a day of net fishing. Troll opportunity at Hidden Falls THA is even more limited (1.2M chum caught by purse seine, but only 210 chum caught with troll gear in 2013)[27] since during the prime fishing period trollers can only sell one chum per Chinook. Hence, while gillnetters and seiners both have exclusive access to chum THA's, trollers do not, and even the "shared" access is not meaningful.

Past objections to providing for meaningful THA troll opportunity have generally fallen along one of two paths. Either "Chum don't bite well enough for trolling to be effective" or "Increasing troll access would mean displacing anther gear group."

I would like to refute those arguments here. First off, chum will bite troll gear – particularly when there are lots of fish. Any fisherman knows that the more fish there are around you, the better your odds. That is why it is critical that trollers be given a block of time in the THA rather than allow nets to sweep the water clean each day. This allows the fish to accumulate so that high catches can be made. On the rare occasion that trollers have been allowed to fish in the Deep Inlet THA after an extended net closure, (generally held on very short notice, thus excluding most boats from participating) the catch rates have been high[28]. To have an extended THA opening in regulation will allow a large fleet to participate in a high-catch fishery.

As for the second argument, 5 AAC 33.364 (c) and 94-148-FB, the 1994 Findings of the Board of Fisheries that include the Fourteen Guiding Principles make it quite clear that it is entirely proper for a gear group that is not catching their share of fish to displace others from terminal area fisheries. The applicability of 5 AAC 33.364 (c) has already been discussed. The 13th Guiding Principle similarly states that:

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[27] All catch info from ADF&G's Harvest Expansion Report.
[28] For instance, per Grant Hagerman of ADF&G during the Sept 3 2014 troll opener in Deep Inlet which followed an extended closure, the average power troller caught over 300 chum.

When adjustments are deemed necessary to the distribution of the harvest to meet allocation percentage goals, the following tools should be used: (1) special harvest area management adjustments; (2) new enhanced salmon production; and (3) modification of enhancement projects production, including remote releases...

Proposal 188 uses both of the first two tools in the 13th Principle. Not only would the trollers be getting the large block of time that they need to be most effective-thus applying tool (1), but the chum releases at the Southeast Cove SHA have recently been augmented with new production[29], hence tool (2) is also being utilized.

I **support Proposal 189** to remove the stipulation that chum trolling in the Hidden Falls THA would be closed if the Northern Chatham Strait pink salmon seine fishery does not occur. There should be no connection between these fisheries.

I **oppose proposal 190, but support proposal 191.** The new hatchery seine fishery at Amalga Harbor has significant sockeye bycatch[30]. Fortunately a management plan already exists to address seine bycatch of sockeye in northern Southeast inside waters (5 AAC 33.366). However, the original language in that regulation is ambiguous as to whether or not sockeye caught in the Amalga fishery are to be included. (5 AAC 33.366 predates the opening of the Amalga SHA to common property seining, so this shouldn't be surprising.) Regardless, both proposals agree that 5 AAC 33.366 is the appropriate means to regulate sockeye bycatch in this new fishery. Only the details differ between the two proposals.

Proposal 190 would exempt the seine fleet from responsibility for all but the first 2,000 wild sockeye caught in this fishery. This is a backwards management idea and adopting this proposal would set a very poor precedent. When addressing bycatch, the standard

[29] Per 2013 Annual Management Plan Gunnuck Creek Hatchery page 19, the average number of fry released between BY 2005-BY2012 was only 17M. Currently permits and plans are for 55M/year. . A copy of this page is included as Supplementary Material at the end of this letter.

[30] Per information provided by ADF&G at the Sitka AC meeting on Feb 2, 2015, over 4,000 sockeye (2,760 of which were wild) were taken in 2012 (even though the fishery was only open 2 days that year). The next year 4,429 sockeye (including 3,192 wild) were taken in 4 days of fishing.

mechanism of virtually all management plans is to allow for the incidental take of a carefully calculated amount of bycatch before increasingly significant restrictive measures take effect. Proposal 190 would turn normal procedure on its head by potentially imposing management measures based on the catch of the first 2,000 sockeye, but then intentionally turning a blind eye to excessive by-catch beyond this level- *regardless of how extreme!* Proposal 191 which would count all wild sockeye caught in this fishery towards the established 15,000 fish cap is the sensible alternative- one that is consistent with standard management practice.

It should be noted that the Amalga Harbor THA seine fishery takes place less than two miles from the mouth of Eagle River, through which sockeye destined for Windfall Lake have to pass. This Windfall sockeye fishery is one my most favorite. This small stream is where I learned to flyfish- that being the most effective way to catch these sockeye. I have spent many hours either fishing, walking to and from the fishing hole, or tying flies that would be left in the various snags and branches of Windfall Creek. This run is the last remaining sockeye sport fishery on the Juneau road system- and unfortunately it is now barely viable as a fishery. This run is particularly vulnerable to overharvest as it is not only small[31] but nearly 95% of the returning adults have a single life history (1.3)[32]. With nearly all of the returning fish being the same age, this population lacks the protective redundancy of a typical multi-age return.

The department has a long history of imposing highly restrictive regulations on the Windfall sport fishery-with good reason. It has been completely closed several times- beginning with an emergency in-season closure in 1991. Due to continued sockeye conservation concerns, sport fishing in Windfall Creek has recently been allowed only on Wednesdays and Saturdays during June and not at all in July. (What this means is that sport fishing is allowed only 9 days during the two prime summer months. The sockeye

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[31] Surveyed escapement of average of 1,254 in 1986-88. See page 14 Fishery Data Series No 90-29 *A study of Sockeye Salmon in Windfall Lake,* 1989 by Mike Bethers and Brian Glynn.

[32] See Table 19 of *Abundance, Age, Sex and Size of Sockeye Salmon Catches and Escapements in Southeastern Alaska in 1987* by Scott A. McPherson, Andrew J. McGregor and Mark A. Olsen published as ADF&G's Technical Fishery Report 88-12.

don't actually enter in the system on most years until the 3rd day that fishing is allowed, so really only 7 days of sockeye sport fishing per year is allowed.) The sport bag limit is one fish per day and five per year. Any additional harvest pressure on these fish would probably require that this unique sport fishing opportunity again be fully closed during the summer as it was in 1993 and 1994.

Comment 203

This proposal which would impose a velocity-based distinction between a seine (legal gear) and a pair trawl (illegal gear in Southeast) is an interesting one. While there may be other ways of defining a seine so that it is not fished like a trawl, velocity should be considered a legitimate criteria. Certainly, it would be illogical for somebody to reject Proposal 203 as unenforceable without also coming to the same conclusion regarding Proposal 139 that would set a speed limit of zero for a mechanical jig boat.

I **support proposal 223** to transfer Chinook quota from the July troll opening to the August troll opening. As a whole the troll fleet would be financially better off if the 70%/30% split between the July and August openings were reduced to 60%/40% as per the proposal-or even 50%/50%. The main reason for this is that August kings are worth more than July kings since the price per pound is generally higher. Most reallocation proposals just make one piece of the pie bigger while making another piece smaller by the same amount. This is a rare opportunity to make the whole pie bigger.

Almost any change like this will have some allocative effect. While not every troller will benefit from the bigger pie, the great majority will since a higher price is the type of improvement that benefits the whole region. For example in the average year from 2004-2012, the average July king caught in Area 2 (Central Southeast Outside) was worth $42.52[33], while the average August king was worth 14% more at $48.41.[34] In Area 3 (Southern Southeast Outside) the average July king was worth $41.09[35] and the average

[33] 13.9 lbs @ $2.69/lb - per ADF&G's Grant Hagerman
[34] 13.9 lbs @ $3.28/lb- ibid
[35] 14.4 lbs @ $2.73/lb- ibid

August king was worth 10% more at $45.23.[36] These are the two top-producing Chinook areas for this fishery and drive prices throughout the region.

I **support proposal 224** to allow for a trip limit fishery in the event that a "sweep-up" is needed to catch a small amount of Chinook quota that remains following the typical summer openings. A fishery where the department establishes very low trip limits (likely no more than 1-3 Chinook per trip) would slow the catch rate down to the point that management of even a few thousand fish is feasible. Without this option available, quota remnants too small to permit a competitive fishery have gone unharvested. Not only is this a lost opportunity for the troll fleet in that particular year, but when Alaska leaves treaty Chinook uncaught, we risk losing them permanently through the US-Canada Treaty process.

I **support proposals 226, 227 and 229 (as amended)** to make the North Chatham Strait spring chum troll fishery more viable. I fished the North Chatham Strait area on several occasions during June of 2013. It has the potential to be a productive area for chum trolling which would be a (small) help to alleviate the troll deficit of enhanced salmon,[37] by providing improved troll access to DIPAC chum. There are three major reasons that this district is not currently reaching that potential. The first being that this fishery was designated as experimental and hence it sunset at the end of 2014. Proposal 226 would remove the "experimental" label and both 226 and 227 would delete the sunset clause.

The second major restriction on this fishery is that it has been limited to only 4 days per week. The one-fish-at-a-time nature of trolling means that extended periods of opportunity are required to catch significant numbers of fish. (No matter how many fish there are, catch rates simply can't rise above what is physically possible for a fisherman to pull aboard one fish at a time; A gillnet just has way more holes than a troller has

[36] 14.1 lbs @ $3.14/lb- ibid

[37] Despite being allocated 27-32% of the value of the hatchery-produced salmon in Southeast, in 2014 the troll fleet was limited to only about 1% of the fish returning to DIPAC- one of the regions three major hatcheries. The imbalance of DIPAC fish is so great that it is extremely difficult to see how the 27-32% region-wide goal can be achieved without a substantial increase in the troll harvest of DIPAC fish.

hooks.) In recognition of trollers' limited efficiency, most troll fisheries have historically been open 7 days per week[38] in order to put trolling on par with gillnetting and seining.

The 4-day per week restriction in this district was intended to keep trollers off the water when Juneau-based sport fishermen might be there. While it is possible that there was some utilization of the area by sport boats on the weekend, there were no sport boats at all during the weekdays that I fished there. In the past the area was used by Juneau sportfishermen, but that was back when Hidden Falls hatchery (which released kings that swung through this district on their return migration) had much larger Chinook returns[39] and boat fuel was cheaper. (The Chatham Strait district is about 25 nautical miles from Auke Bay boat harbor.) Proposal 227 would provide for 7 days a week access (for a total of about 3 weeks) to make this a viable fishery.

The third factor that inhibits the utilization of this district is the physical isolation from the Homeshore district- the nearest other spring chum area. For a troller in the Homeshore area with a traditional displacement hull boat, it is a significant investment of time to prospect in North Chatham because of the distance involved. Even at 7 knots cruising speed it takes about 2 hours (14 nautical miles) of lost fishing time to leave the most popular drag of the Homeshore district and travel to the main fishing area in the North Chatham district. Proposal 229 (as amended by the proposer to correct coordinate errors in the original proposal) would at least allow a troller to keep fishing as he traveled between the districts by opening currently-closed waters between the two areas.

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[38] Some spring Chinook troll districts are open for fewer than seven days per week, but these are small districts adjacent to other easily accessible areas that are open the rest of the week, so that a boat can easily move from the area that is closing to the open area without losing substantial fishing time. The North Chatham fishery occurs on the extreme eastern edge of the district. It is isolated from the Icy Strait spring chum troll district by both sheer distance and the often-rough waters of Chatham Strait.

[39] Per the "Hidden Falls Chinook Utilization" data available on the NSRAA website, in 1995 to 2001 the Hidden Falls return averaged over 30,000 Chinook with the sport harvest exceeding 1,000 in 1999 and 2000. Since 2009-2013 the average total return was only 8,160. According to the 2014 NSRAA fall board book, the total 2014 return was only 1,687 Chinook. NSRAA deliberately reduced the size of their Chinook releases from Hidden Falls several years ago and there currently there are no plans to return it to the former levels. . A copy of this document is included as Supplementary Material at the end of this letter.

I oppose proposal 228. Imposing a fixed-length 10 day closure (Ten days is the extreme upper end of the variable length closure that currently is in regulation.) on the entire troll fishery from Dixon Entrance past Yakutat is an extraordinarily inefficient way to increase coho returns to the Angoon area. Rolling closures along the migration corridors would be more efficient- and likely more effective too- that is if the runs actually were depressed. While that is possible, it is would have to be a highly localized problem. There are six coho index systems in Northern Inside Southeast Alaska. While some of them show multi-year cyclic patterns, none of them exhibit long-term decline, nor are there more than occasional instances where escapement goals have failed to be attained[40].

Of the index streams with CWT data available, Auke Creek is probably the most similar to Angoon-area streams. Auke Creek has a small run of coho and unlike fish returning to the other index systems with tagging programs, Auke Creek coho (like their Angoon counterparts) do not need to travel through an active gillnet fishery. This stock is "exploited at a relatively low average rate of 40% (range 20-55%) during 1980-2010…"[41] Hence, it seems unlikely that over-exploitation (by trollers or anybody else) is the true cause of Angoon's problems.

I do share concerns with the people of Angoon and others fishing in the northern inside waters of Southeast. Many years ago (early '80s) there would often be enough coho in the Juneau waters for a viable sport fishery as early as June. Recently, it is often mid-August before the fish are that abundant. I don't know what has caused that change in fish migration timing, but a troll closure in early August is not going to increase the number of fish in Angoon or Juneau during June or July.

I **oppose proposal 230**. District 15C is a traditional common property troll and gillnet fishery. (I.e. it has not been designated as a hatchery Terminal Harvest Area and it has been open to both gear groups since well before the modern hatchery era.) As a traditional troll area, District 15C is covered by Guiding Principal #1 in the Board Of

[40] See Figure 4 of *Coho Salmon Stock Status and Escapement Goals in Southeast Alaska*, ADF&G Special Publication No. 11-23 by Leon Shaul et al.
[41] See page 42, Ibid.

Fisheries Findings 94-148-FB developed by the Southeast Alaska Allocation Taskforce and adopted by the BoF January 17, 1994.

Guiding Principle #1:
The primary goal of the Southeast Alaska salmon enhancement program is to provide additional fishing opportunities and revenue to traditional common property fisheries.
This proposal would restrict troll access to a traditional common property fishery as a result of the presence of hatchery chum. Clearly this is entirely contrary to the number one goal of providing additional fishing opportunity.

Just in case the intended sanctity of traditional fisheries was not perfectly clear, in Guiding Principles #2, the BoF establishes that:
Management of traditional "wildstock" fisheries are not to be restricted by cost recovery needs of hatcheries.

Furthermore, Guiding Principle #3 insist that traditional fisheries should generally have priority even over hatchery broodstock:
Restrictions on conduct of traditional "wildstock" fisheries to meet broodstock needs should be absolutely minimal...

These first three guiding principles should make the inappropriateness of this proposal obvious. Traditional fisheries are to be given the highest priority.

It is true that the historic target of the troll fishery in 15C was coho, rather than hatchery chum, but similarly the historic target of the drift gillnet fishery during July was sockeye. Unlike in the troll fishery, there is no longer even an attempt to maintain the appearance that the contemporary drift gillnet fishery is the historic sockeye fishery. While trollers are still permitted to use coho gear in the area, contemporary gillnet regulations often require that large-mesh nets be used in order to allow some of the smaller sockeye to escape.

This change in target species is not objectionable. Even back in 1994, the BoF recognized that this day would come. The quotation marks around "wildstock" in the Guiding Principles make it clear that the BoF realized that some traditional fisheries would eventually end up targeting hatchery fish, but that they nonetheless intended that these long-standing fisheries continue to receive protection conferred by their traditional status.

Simply put, this is a vindictive proposal. There is no good reason to deny trollers access to a traditional area because there are lots of hatchery fish there. The irony of a proposal to restrict traditional access due to the abundance of hatchery chum contrary to stated goal of increasing opportunity is blatant.

Furthermore, for me personally, this proposal is ironic in another way as well. As a member of the Chum Troller's Association, I attended the 2013 spring NSRAA meeting where the CTA asked for higher quality fishing opportunity in the Deep Inlet Terminal Harvest Area. Not only were we rudely received and our proposal not even allowed to be discussed, but the NSRAA chairman-a prominent gillnetter, made the comment that trollers ought to go fish our traditional waters instead of the Deep Inlet THA. He specifically mentioned District 15C as an example of a traditional area where he thought that CTA members should look to fish. I told him that I would do so, and indeed I did troll in 15C that summer. Given that public conversation I find it difficult to believe that the United Southeast Alaska Gillnetters view this as a legitimate proposal.

It is clear that the main concern that the United Southeast Alaska Gillnetters have is that they don't want trollers to be able to catch a share of the DIPAC chum in district 15C.

While the proposal statement expresses a concern that gillnet opportunity might be limited due to wild chum and coho numbers, chum and coho management doesn't begin until week 34[42] (about the third week of August) well after the time period that this proposal addresses. The primary concern for gillnet management during July is sockeye

[42] See page 22 of Regional Information Report No 1J14-03 *2014 Southeast Alaska Drift Gillnet Fishery Management Plan* by Dan Gray et al.

escapement[43]. In terms of bycatch sockeye, troll gear is much more selective than even large-mesh gillnet gear at harvesting chum without catching sockeye. During statistical weeks 28 and 29 (mid July) of 2013 (the most recent July time period for which the troll harvest is publicly available), the gillnet fleet in the traditional 15C fishery caught 1 sockeye for every 12 chum[44], while the troll fleet's sockeye:chum ratio was 1:59[45]. The trollers were 5 times as efficient at avoiding sockeye! The gillnetters fishing within the Boat Harbor THA (an area theoretically selected to eliminate wild stock interception) caught 1 sockeye for every 4.5 chum[46] in this time period! In terms of overall sockeye harvest during these two weeks, the gillnet fleet caught 99.7% of the total sockeye from District 15C. Given these numbers, the United Southeast Alaska Gillnetters' claim of being concerned about troll catch of wild stocks when the troll harvest is so minimal should be easily recognized as a ruse.

I **support proposal 233** to allow handtrollers to use manual downriggers all year long (instead of just in the winter). This may seem like an unusual position coming from a power troller, but it is just common sense. Some smaller handtroll skiffs are not large enough to fish gurdies safely. (Should the cannonball get snagged on bottom, the boat can easily capsize.) Downriggers will at least let these fishermen get a hook down to the depths needed to catch a king or two. Occasionally even a boat already rigged with hand gurdies might want to use a downrigger if the fish are unusually spooky and a very light leader is needed. Manual downriggers are legitimate hand troll gear and never should have been disallowed in the first place. Hand trollers ought to be given the option to use them when ever they so choose.

Thank you for considering my thoughts,

Tad Fujioka

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[43] Ibid.
[44] Per ADF&G Harvest Expansion Report Week 28: 7,196 sockeye 135,376 chum; Week 29: 8,431 sockeye, 51,769 chum or 15,627 sockeye and 187,145 chum over the period
[45] Ibid, Week 28: 13 sockeye, 2094 chum; Week 29: 42 sockeye 1,175 chum or 55 sockeye and 3269 chum for the two weeks
[46] Ibid, Week 28: 4,977 sockeye, 20,842 chum; Week 29: 4,112 sockeye, 19,696 chum which makes the two week total: 9,089 sockeye and 40,538 chum

List of Supplemental Material:

Fredrick Funk's- Informational Leaflet 217: "Optimization of Alaska Troll Fishery Chinook Salmon Yield: A model of the Effects of Size Limits, Gear Restrictions, and Time-Area Closures" Figure 1 shows that earlier-maturing Chinook are larger at same age than later-maturing Chinook

CTC's 2013 Exploitation Rate Analysis and Model Calibration Volume Two Appendix Supplemental" Appendix C42 shows that the troll fishery exploitation of Taku Chinook is very low and that the overall escapement rate is quite high.

5 AAC 33.364- existing regulation; This is the Southeastern Alaska Area Enhanced Salmon Allocation Management Plan

94-148-FB is the Findings of the Board of Fisheries that contains the 14 Guiding Principles behind 5 AAC 33.364. The principles were developed by industry consensus in the early 1990's. (8 pages)

US District Judge Rosemary Collyer's Opinion in *Van Valin v. Locke* pages 19-20 with remarks on the inappropriateness of rewarding a gear group for historically harvesting over their allocation.

Chip Blair's "NSRAA 2014 Salmon Season Recap 2015 Forecast" slides 7, 5, 10 & 11 show the severity and persistence of the troll under-harvest of enhanced salmon

"NSRAA Ex-Vessel Value by Species" shows that chum salmon dominate NSRAA's returns.

"Gunnuck Creek Hatchery Annual Management Plan" Appendix 3- shows that the planned for 55M chum release at Southeast Cove would be much larger than recent releases at this site.

"Hidden Falls Chinook Utilization" Page 1 shows that Hidden Falls Chinook returns (and the sport component of those returns) were much larger in the late 1990's than the recent past.

From Informational Leaflet No 217: "Optimization of Alaska Troll Fishery Chinook Salmon Yield: A Model of the Effects of Size Limits, Gear Restrictions, & Time-Area Closures" by Frederick C. Funk Apr. 1983

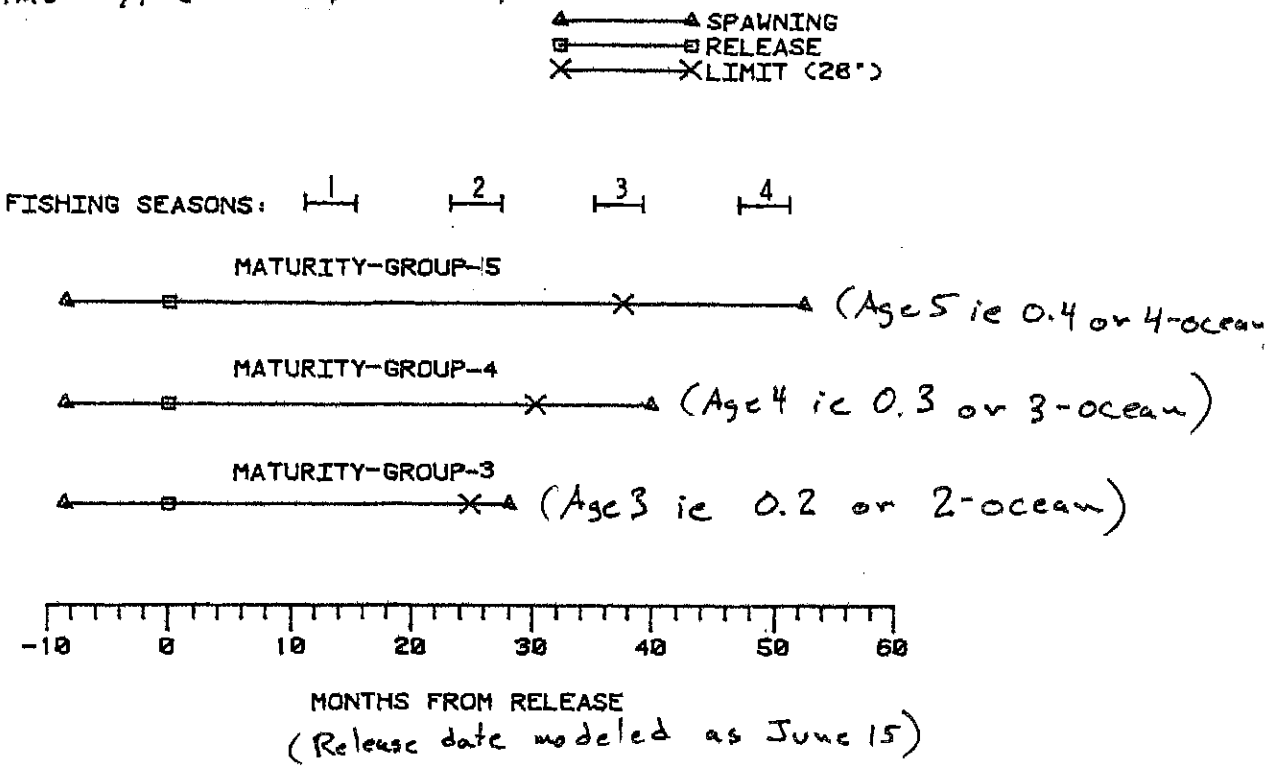


Figure 1. Life history events for a typical fall chinook hatchery stock.

The Age 3 spawners (bottom group) reach 28" during their 2nd fishing season. The Age 4 & Age 5 spawners (middle & upper groups) don't reach 28" until after their second summer.

Supplemental Mat'l Proposal 157
Foot note 7

Appendix C42. Percent distribution of Taku River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM														Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	217	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	300	3,4,5	3.7%	3.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	89.7%
1981	446	3,4,5,6	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	94.8%
1982	266	3,4,5,6	7.1%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	89.8%
1983	168	3,4,5,6	3.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.2%
1984	357	3,4,5,6	10.9%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.1%
1985	344	4,5,6	2.9%	0.0%	8.4%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.8%
1986	165	5,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	50	6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	69	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	193	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	380	3,4,5	1.1%	2.4%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	93.9%
1997	650	3,4,5,6	0.6%	3.2%	9.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	86.3%
1998	391	3,4,5,6	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	98.7%
1999	623	3,4,5,6	2.1%	6.3%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.6%
2000	1017	3,4,5,6	2.1%	1.3%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	94.1%
2001	993	3,4,5,6	3.0%	3.6%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	89.9%
2002	870	3,4,5,6	3.3%	3.1%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	85.9%
2003	867	3,4,5,6	2.2%	2.8%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	93.3%
2004	2158	3,4,5,6	3.4%	6.7%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	86.6%
2005	1285	3,4,5,6	2.8%	33.2%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.6%
2006	902	3,4,5,6	3.5%	17.8%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.3%
2007	410	3,4,5,6	7.6%	12.7%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	78.5%
2008	635	3,4,5,6	5.0%	4.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	90.6%
2009	356	3,4,5,6	7.0%	12.6%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	77.8%
2010	324	3,4,5,6	3.1%	1.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	93.8%
2011	301	3,4,5,6	7.6%	6.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	83.4%
1979-2011	638		4.0%	5.8%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.3%
1979-1984	307		6.0%	2.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	91.3%
1985-1995	344		2.9%	0.0%	8.4%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.8%
1996-1998	474		1.0%	1.9%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	93.0%
1999-2011	826		4.1%	8.6%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.4%

High Escapement Rate

From Pac. Salmon Commission's Joint Chinook Technical Committee's "2013 Exploitation Rate Analysis and Model Calibration Vol Two: Appendix Supplement"

Supplemental Mat'l Proposal 174
Footnotes 8-10.

5 AAC 33.364. Southeastern Alaska Area Enhanced Salmon Allocation Management Plan

(a) The purpose of the management plan contained in this section is to provide a fair and reasonable distribution of the harvest of salmon from enhancement projects among the seine, troll, and drift gillnet commercial fisheries, and to reduce conflicts among these users, in the Southeastern Alaska Area. The Board of Fisheries establishes the following value allocations:

(1) seine - 44 percent - 49 percent;

(2) hand and power troll - 27 percent - 32 percent;

(3) drift gillnet - 24 percent - 29 percent.

(b) The department shall evaluate the annual harvest of salmon stocks from enhancement projects to determine whether the distribution of the value of enhanced salmon taken in the seine, troll, and drift gillnet fisheries in the Southeastern Alaska Area is consistent with the allocations established in (a) of this section. The evaluation of allocation percentages shall be based on five-year increments, beginning with 1985. The value of the enhanced salmon harvested each year shall be determined by the department based on data from the Commercial Fisheries Entry Commission.

(c) If the value of the harvest of enhanced salmon stocks by a gear group listed in (a) of this section is outside of its allocation percentage for three consecutive years, the board will, in its discretion, adjust fisheries within special harvest areas to bring the gear group within its allocation percentage.

(d) The department may not make inseason adjustments or changes in management in or out of the special harvest areas to achieve the allocation percentages established in (a) of this section.

Supplemental Material
Proposals 175, 176
187&188
Footnote 13 and other references

94-148-FB

FINDING OF THE ALASKA BOARD OF FISHERIES

SOUTHEASTERN ALASKA AREA ENHANCED SALMON ALLOCATION MANAGEMENT PLAN [5 AAC 33.364]

(Previously Finding #94-02-FB)

The attached report was developed by the Southeast Alaska Allocation Task Force (SATF) for Proposal #239 for the 1993/94 board meeting cycle. The board deliberated the proposal at its board meeting in Ketchikan, Alaska on January 17, 1994.

The Board incorporates by reference the attached SAFT report as its findings for 5 AAC 33.364 adopted on January 17, 1994.

Adopted: January 19, 1994 @ 11:21 am
Ketchikan, Alaska

Vote: (6:0:1) Yes: No: Absent, Angasan)

T. M. Elias

Tom Elias, Chairman
Alaska Board of Fisheries

Supplemental Material
Proposals ~~234~~ 175, 176
182, 183, 185, 186, 187 & 188
Referred to in footnote 14 and
numerous other places

BACKGROUND: In March 1991 Mike Martin, Chairman of the Board of Fisheries, asked the Northern Southeast Regional Aquaculture Association (NSRAA) and the Southern Southeast Regional Aquaculture Association (SSRAA) to coordinate the development of a southeast wide allocation plan for all enhanced salmon.

The issue concerned the benefits commercial fishermen received from the enhancement activities, especially in relation to the amount of the 3% Salmon Enhancement Tax (SET) paid. The issue was different between the Regional Associations and could not be resolved. Numerous proposals have been submitted to the Board of Fisheries to resolve the issue but none were acted upon. Chairman Martin requested that the two Regional Associations consider an all Southeast Alaska Allocation Plan to include all enhancement activities: Fish and Game FRED division, Independent Non-profit Aquaculture corporations; and Regional Aquaculture Associations.

The Boards of Directors of NSRAA and SSRAA agreed to accept the challenge. They formed a group that first met on March 29, 1991 in Ketchikan. The group called itself the Southeast Allocation Task Force (SATF). The SATF is composed of six voting members, three each from NSRAA and SSRAA, and each association provided one seiner, one troller, and one gillnetter for a total of two people from each gear type on SATF. All decisions were by consensus. No meeting was held without six voting members present.

There were two non-voting members on the SATF, one each from the FRED Division and a representative from the independent non-profit aquaculture corporations. DIPAC represented the independent seat. Also, each Regional Association provided one staff member, Pete Esquiro represented NSRAA and Don Amend represented SSRAA. The staff and non-voting members are resource people who provided technical input and comments when appropriate. The SATF also has had technical input from the NMFS at Auke Bay, the limited entry commission, and other people as needed.

All meetings were publicly held. Announcements were made southeast wide in newspapers and radios. Public attendance was minimal, but a few showed up at each meeting. These people were allowed to address the SATF as recognized by the chair. There was no appointed sport representative, but these interests were present at a few meetings. There was a total of five meetings.

The SATF developed the number of fish caught and this was reviewed by scientists at the Auke Bay Laboratory. The value of the fish was provided by the Limited Entry Commission. The data does not include enhancement activities by the National Marine Fisheries Service (NMFS), Metlakatla Indian Community (MIC) on Annette Island, or the U.S. Forest Service (USFS). The production at NMFS is small and experimental. Although the production by the MIC is significant and they also harvest Alaska enhanced fish, this was not included because their harvest and production cannot be controlled by the State.

The USFS conducts many habitat enhancement activities, but the numbers cannot be verified or evaluated. All of S.E. Alaska was included (Districts 1-15), but the Yakutat area was excluded.

The base period for data analysis was 1985. Production prior to 1985 was not significant and most projects were just coming on line. The data was evaluated through 1990 and will be updated annually as it becomes available. Averages were based on this period when production was still increasing and changing. Estimates were made based upon all currently permitted capacity when at full production. Future production was based on planned increases in capacity, but not yet permitted or operational.

The development of the agreement was based on catches by power and hand trollers, purse seiners, and drift gillnetters. Set nets were not included and are not used in the areas analyzed. Sport, sport charter, subsistence, and personal use were not included. The agreement was based only upon those who pay the 3% SET. No allocation was suggested for these other groups. The belief was that they are restricted by bag limits and an allocation of enhanced fish is inappropriate.

The guidelines will be submitted to the Board of Fisheries and may be set in regulation, or developed into policy. The guidelines will be used by the Regional Planning Teams (RPTs) as one element in the evaluation of permit requests and proposed production changes. The Commissioner of Fish and Game will consider the guidelines when evaluating permits or establishing special harvest areas. The Commissioner of Commerce of Economic Development will consider them in determining salmon enhancement loans for changes in production. The Board of Fisheries will use it to make decisions concerning gear group disagreements that involve enhanced fish production. The guidelines are viewed as goals to achieve and remain flexible for changing conditions, such as management changes, treaty changes, gear changes, legislative changes, etc. It was not intended for Fish and Game management to use in managing the common property fishery, except in a very few special instances.

REPORT OF THE SOUTHEAST ALASKA ALLOCATION TASK FORCE (SATF) FOR ENHANCED SALMON

Following are the fourteen (14) guiding principles which were developed along with rationale statements for each:

1. The primary goal of the Southeast Alaska salmon enhancement program is to provide additional fishing opportunities and revenue to traditional common property fisheries.

(A) Performance Goals: Hatchery program plans and performance, over time, should provide a 70% contribution (after broodstock) to common property fisheries. Out of recognition for those hatcheries not receiving any salmon enhancement tax (SET) revenues, a 60% contribution (after broodstock) to common property fisheries is an acceptable goal. This goal should be expanded to 70% when these non-association hatcheries retire their existing debt obligation to the State of Alaska.

(B) Operators of hatcheries and other enhancement projects will use these performance goals in designing the annual management plans they submit to the joint Regional Planning Team (RPT) for review prior to approval by the Commissioner.

(C) It is recommended that enhancement programs that achieve these performance goals be given priority from the Dept. of Commerce and Economic Development on the requests for funding from the Fisheries Enhancement Revolving Loan Fund.

(D) Common property fisheries means those fisheries available to the people for common use.

Rationale: The enhancement programs are primarily for the benefit of the common property fishery and not for the benefit of private or state ownership. To assure the emphasis is on the common property fisheries, the 70% and 60% performance goals specified in 1A shall be used in evaluating projects. Although contributions to the common property fisheries will vary from year to year depending on run strength, survival rates and management, the long term benefit must be to the common property fisheries. No penalty for failure is suggested. However, hatchery proformas should include these production goals and, if not achieved over time, it is intended that management changes be made to assure these goals.

Broodstock are not included because they were viewed the same as escapement goals. Broodstock do not financially benefit anyone directly and are essential for continued production (see number 3).

2. Management of traditional "wildstock" fisheries are not to be restricted by cost recovery needs (economic escapement) of hatcheries.

Rationale: This concept is embodied in Alaska Statutes (AS 16.05.730). The SATF could not envision any circumstance where a wildstock fishery should be interrupted to assure a cost recovery harvest.

3. Restrictions on conduct of traditional "wildstock" fisheries to meet broodstock needs should be absolutely minimal and should be clearly documented by adequate production and harvest data. Protection of broodstock should only occur in close proximity to terminal areas. (Consistent with AS 16.05.730, and regulations 5 AAC 40.005 and 5AAC 40.220).

Rationale: The SATF recognizes the importance of broodstock. However, broodstock alone should not drive a common property fishery. Protection of broodstock should only occur in close proximity to terminal areas and only when the wildstocks can be adequately harvested in another area. The need for protection of broodstock in any area must be documented by showing that broodstock goals are adversely affected and the area contains significant broodstock. However, it is not intended that an operator manipulate activities just to ask for

broodstock protection. For example, by conducting cost recovery harvest without taking proper steps to assure broodstock collection.

4. Enhancement projects should include tagging or marking that will allow determination of the amount of production harvested in the various fisheries.

Rationale: It is recommended that adequate tagging programs be required under the Commissioner's authority (AS 16.10.400). Operator estimates are not adequate for estimating contribution to common property fisheries. Tagging or marking programs are essential; however, because the technology for marking fish is still evolving, no method is recommended. It is assumed that the most reliable and cost effective method will be used.

5. The State of Alaska should commit to an adequate mark recovery program for all enhanced salmon to provide harvest and production data.

Rationale: It is recommended that those responsible for enhancing fish should pay for the marking, but only the state has the resources to conduct the tag recovery program. The allocation agreement will not work unless the state commits to a mark recovery program. Also, there was evidence that the tag recovery program was not being conducted equally among the gear types or species harvested. For example, troll chinook fisheries have been more intensively sampled, while the seine harvest has been sampled the least of the gear groups. The tag recovery program should be designed to provide an equal level of confidence in the contribution of enhanced salmon to each gear type.

6. Habitat enhancement and restoration projects where marking is not feasible will not be counted. Other field projects where marking is feasible and economically acceptable will be counted.

Rationale: Lake fry plants, stream bioenhancement, stream rehabilitation, and other enhancement strategies are frequently conducted with small numbers of fish in remote areas. It may not be practical or economically feasible to mark the fish. These enhancement and restoration projects are encouraged and it is recognized that they contribute to the common property fisheries, but they will not be counted in the allocation percentages. However, where feasible, marking should be conducted.

7. The allocation percentage goals will be used to provide a fixed target for production.

Rationale: Enhancement projects and production goals have frequently been established based on political expediency or the economic viability of the operator. However, whenever fish are released and the returning adults harvested, an allocation is made. The allocation can become disproportionate based on the number of fish and where they are released.

It is desirable that new production, or revised existing production contribute to achieving the

allocation percentage goals established. This however, should not be the only criteria used to judge the desirability of new or revised production. If such new or revised production is "projected" to unbalance the distribution of enhanced salmon, and the change in production is otherwise considered desirable, the RPT will evaluate the overall enhancement program to determine what adjustments may be necessary to bring distribution of the harvest into compliance with the allocation percentage goals and make recommendations to the Commissioner.

8. Allocation percentage goals will be long term.

Rationale: It is recognized that survival rates can vary considerably within and among enhancement projects throughout S.E. Alaska. Also, variations in the management of the common property fisheries influence the harvest rates. The allocation percentage goals are not expected to be attained each year, but should be attained over the long term. Any change in production takes two to five years to impact a fishery. Therefore, allocation percentage goals should be based on a minimum of five year increments (see number 9).

9. Overall contribution of revenue from salmon enhancement projects should be evaluated using the most recent five year average. Adjustments should be implemented only after discrepancies are determined to exist in the five year average for three consecutive years.

Rationale: See number 8 above. The distribution of enhanced fish is expected to vary widely from year to year. A five year rolling average was used because it constitutes a production cycle and levels year to year variation. It is recognized that a single abnormal year can change the five year average outside the range of the allocation percentage goals; therefore, the guidelines establish a three year period of consistent discrepancy before any change is made.

10. The joint RPT will evaluate current enhanced salmon production and the distribution of harvest revenues and update this on an annual basis.

(A) Each facility should be evaluated after a minimum five years of operation to determine whether the 70% or 60% common property contribution, referred to in guiding principle 1A, is being achieved or to determine the realistic production and common property contribution for the facility.

(B) The joint RPT will conduct an evaluation to determine when the allocation percentages are not being achieved and adjustments are necessary.

(C) The joint RPT will recommend to the Commissioner adjustments to facilities' annual operating plans as necessary to accomplish the desired allocation goal.

Rationale: The SATF believes the joint RPT is the appropriate body to review the contribution data. The joint RPT is responsible for establishing and maintaining the comprehensive salmon plan, under the Commissioner's authority, and is responsible for recommending permit changes for production to the Commissioner.

11. Achieving these allocation percentage goals should not result in any modifications, in time or area, to the traditional "wildstock" fisheries. Minor modification may be considered to allow experimental or test fisheries that would not adversely impact wildstocks.

Rationale: The SATF strongly believed that the common property fisheries for wildstocks should not be manipulated in order to achieve the allocation percentage goals. However, this is not intended to preclude experimental or test fisheries, special hatchery access fisheries, or the establishment of new special harvest areas in order to access enhanced fish. For example, this could include the June troll fisheries for chinook, or late season openings, or other special openings used to target enhanced fish as long as wildstocks are not adversely impacted. It is recommended that the department allow targeted fisheries on enhanced stocks when they will not adversely impact sustained yield of wildstocks. The department should work closely with hatchery operators in establishing these fisheries, keeping in mind the 70% and 60% contribution goals. The harvest of enhanced salmon in a targeted wildstock fishery is considered incidental to the harvest of wild stocks.

12. There should be no inseason changes in management of enhanced salmon in or out of the special harvest areas to achieve the allocation percentage goals.

Rationale: These guidelines are established to reach long term allocation percentages. Inseason common property fisheries adjustments should not be considered to meet allocation goals. No adjustment of wildstock fisheries should be allowed in order to meet the allocation percentage goals.

13. When adjustments are deemed necessary to the distribution of the harvest to meet allocation percentage goals, the following tools should be used: (1) special harvest area management adjustments; (2) new enhanced salmon production; and (3) modification of enhancement projects production, including remote releases. Hidden Falls shall remain a seine/troll terminal harvest area (Consistent with 5 AAC 33.374).

(A) The joint RPT will make appropriate recommendations through the Commissioner to facility(s) annual operating plan(s) to attain allocation goals.

(B) Facilities may request changes in operating plans to meet allocation requirements.

Rationale: New production and facility modifications to meet the allocation percentage goals are long term changes and will take five to ten years to have an impact. Changes in special harvest areas can be used in the short term to help modify any imbalances that occur.

For example, special harvest areas can be designated to only one gear group or the fishing time allowed to different gear groups could be adjusted. The effectiveness of this will also be contingent on the gear type and the targeted species. The SATF expects these adjustments will be reviewed by the joint RPT, and the joint RPT will make recommendations to the Commissioner as to the most appropriate action needed to achieve the allocation percentage

goals. It is anticipated that short term solutions such as special harvest area management adjustments will only be used until decisions concerning long term adjustments can take effect. The allocation percentage goals will also be considered when reviewing permit alteration requests. If new production is not feasible or desirable, changes in remote releases can include new sites, change in species composition, change in the numbers of salmon released, or a combination of these.

14. The allocative percentages will be:

Note: The following percentages refer to the total value (nominal dollars) of enhanced salmon. These percentages are not intended to apply to wildstock allocations.

Seine - 44% to 49%
Troll - 27% to 32%
Gillnet - 24% to 29%

From Opinion in Van Valin et al v. Locke by US District Ju er

(2008 charter harvest was 983,000 pounds above the 2008 GHL); 74 Fed. Reg. at 21207 (the commercial sector has been subject to annual harvest limits, and their limits have been reduced by 54% between 2005 and 2009).

While present participation in the fishery is one factor that the Secretary must examine when considering fishery management measures, another factor is historic harvest participation levels. *See* 16 U.S.C. § 1853(b)(6) (one of the factors to be considered under the Magnuson Act is historic participation and dependence on the fishery). In *Yakutat v. Gutierrez*, 407 F.3d 1054 (9th Cir. 2005), the plaintiffs challenged the Secretary's decision to limit the number of boats fishing for Pacific cod by granting licenses only to boats that caught a prescribed amount of fish during any two years between 1995-1998, and excluding 1999 as a qualifying year. The plaintiffs contended that the exclusion of 1999 was unfair and inequitable because it failed to take into account the most recent participation in the fishery. The court found that it was permissible for the Secretary to place a higher premium on historical participation in the fishery rather than focusing solely on present participation. *Id.* at 1073. When promulgating the Final Rule, the Secretary examined the historical participation in the Pacific halibut harvest and the charter fishery's excessive harvests in recent years.[13] Overfishing by the guided sport sector was the very thing that compelled the Secretary to promulgate the Final Rule. *See* 74 Fed. Reg. at 21194.

Where overfishing by one group in recent years is the precise concern that the regulation intends to address, it makes sense to disregard the most recent participation data. *See, e.g., Alliance Against IFQs*, 84 F.3d at 347-48 (NMFS had good reason to disregard participation

[13] The EA included recent data — data from 1995 through 2007 — regarding guided charter participation in the halibut fishery in Area 2C. EA at 21 (Table 4).

Supplementary Material
Proposals 175 & 176
Footnote 15.

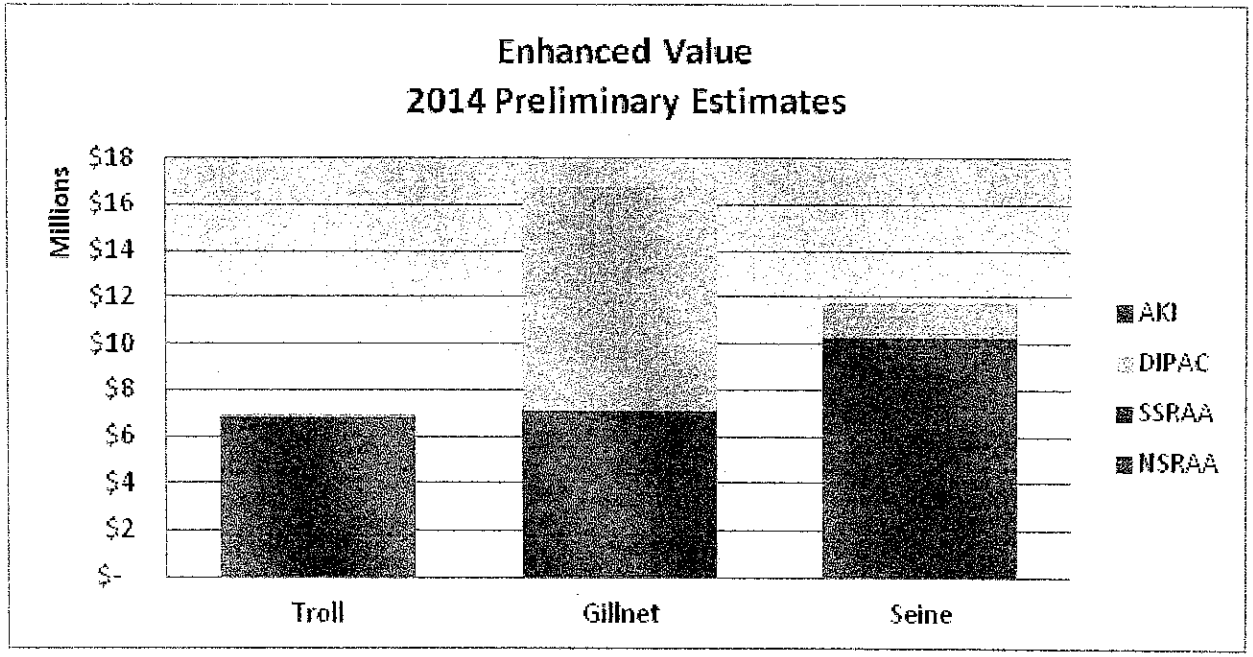
data where consideration of that data would have encouraged the overharvesting that the regulatory scheme was meant to restrain). The charter sector exceeded the GHL by 22% in 2004; by 36% in 2005; by 26% in 2006; and by 34% in 2007. 73 Fed. Reg. at 78277-78. And in 2008, the guided sport industry harvested more than double the 2008 Guideline Harvest Level, an estimated 1.914 million pounds of halibut. *See* EA at 9. The Charter Operators' argument that the Secretary should have relied on recent participation data is in essence a claim that they are entitled to a greater allocation of the harvest because they have been harvesting a greater amount in recent years, *i.e.*, that they should be rewarded for exceeding the guidelines year after year. The Secretary understandably chose not to encourage such overharvesting.

The Charter Operators' real complaint is not that the Secretary ignored recent harvest data, but that the Secretary did not make a different allocation decision. But the Court may not substitute its own or the Charter Operators' judgment for that of the Secretary. *See Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43 ("the scope of review under the 'arbitrary and capricious' standard is narrow and a court is not to substitute its judgment for that of the agency"). Because the Secretary promulgated the Final Rule based on an evaluation of the relevant quantitative and qualitative factors and explained the basis of the Rule, establishing a rational connection between the facts found and the choice made, summary judgment will be granted in favor of the Secretary with respect to Count II.

IV. CONCLUSION

For the reasons set forth above, Plaintiffs' motion for summary judgment [Dkt. # 17] will be denied. The Secretary's motion for summary judgment [Dkt. # 20] and the Intervenors' motions for summary judgment [Dkts. ## 19 & 22] will be granted. A memorializing Order

2014 Preliminary – Gear Splits by Agency



From: "NSRAA 2014 Salmon Season Recap 2015 Forecast" by NSRAA's Chip Blair

This is slide 7

Supplementary Material Proposal 176
Foot note 16

2014 Preliminary Value by Agency & Gear

	Troll	Gillnet	Seine	Total
NSRAA 22%	$ 1,788,189	$ 1,745,819	$ 4,494,021	$ 8,028,029
SSRAA 31%	$ 5,009,160	$ 5,342,576	$ 5,796,588	$ 16,148,324
DIPAC	$ 131,600	$ 9,675,954	$ 1,504,100	$ 11,311,654
AKI 1%!	$ -	$ -	$ -	$ -
TOTAL	$ 6,928,949	$ 16,764,349	$ 11,794,709	$ 35,488,007
	20%	47%	33%	100%

NSRAA includes SJ at Deep Inlet

From "NSRAA 2[illegible] Season Recap 2[illegible] by NSRAA's Chip Blair. This is slide 5.

2014 Preliminary data

$35,500,000 total enhanced value,
or approximately 28% of total value estimate ~$126M

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	$ 6,928,949	$ 11,794,709	$ 16,764,349	$ 35,488,007	OPER prelim	6
1994-14 Total	$ 104,159,665	$ 259,053,516	$ 205,457,567	$ 568,680,968		
1994-14 Avg.	$ 4,960,471	$ 12,335,882	$ 9,783,694	$ 27,080,046		
1994-14 Percent	18%	46%	36%	100%		
2014 Percent	20%	33%	47%	100%		
Target	27-32%	44-49%	24-29%			

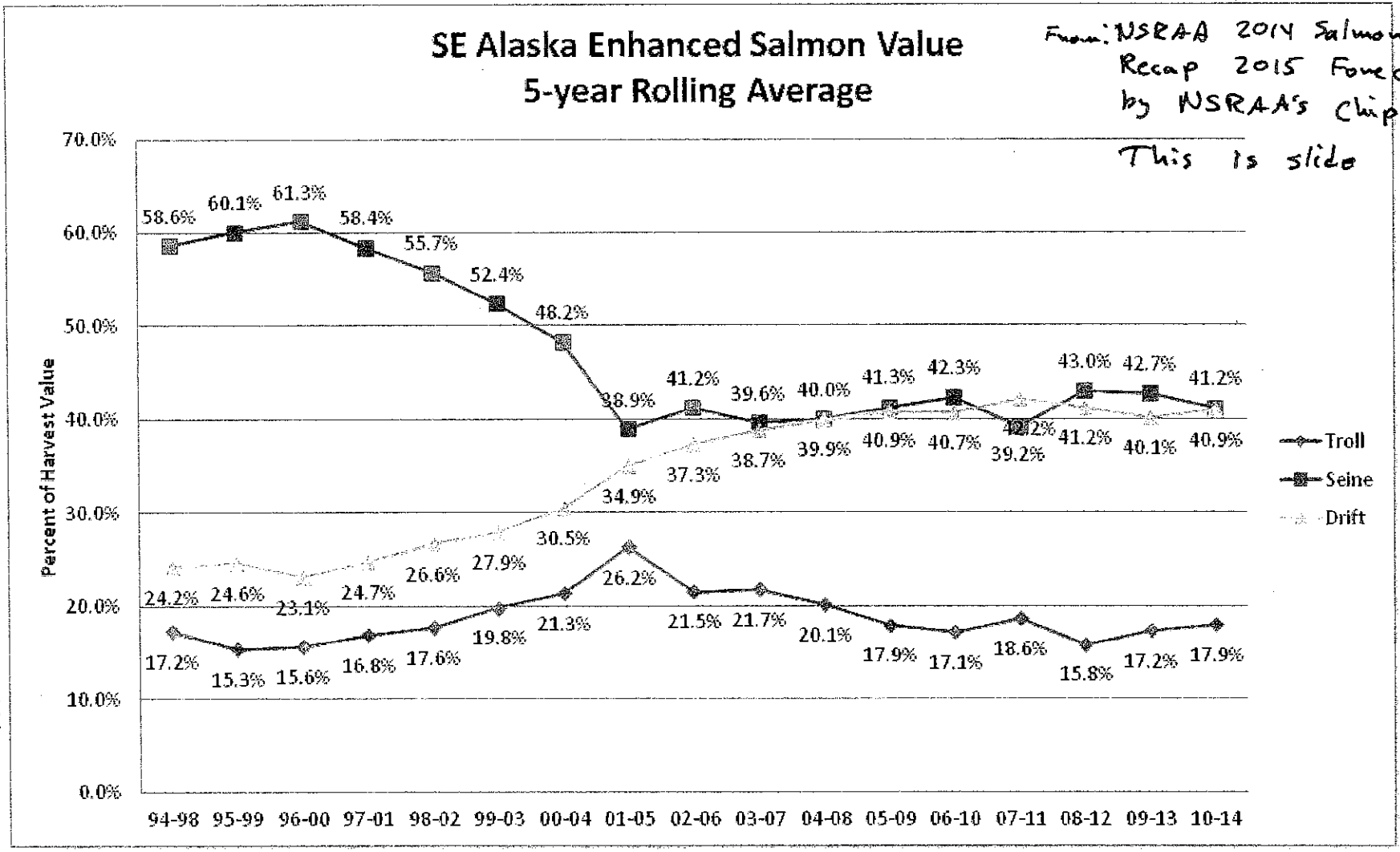
Most Recent 5 Yrs: 17 1/2 % 41 1/2 % 40 1/2 %

Supplementary Material
Q proposal 176
Footnotes / Trend 22

2014 Preliminary – 5-year rolling average

Target Ranges:

- Troll 27-32%
- Seine 44-49%
- Gillnet 24-29%



From: NSRAA 2014 Salmon Season Recap 2015 Forecast" by NSRAA's Chip Blair

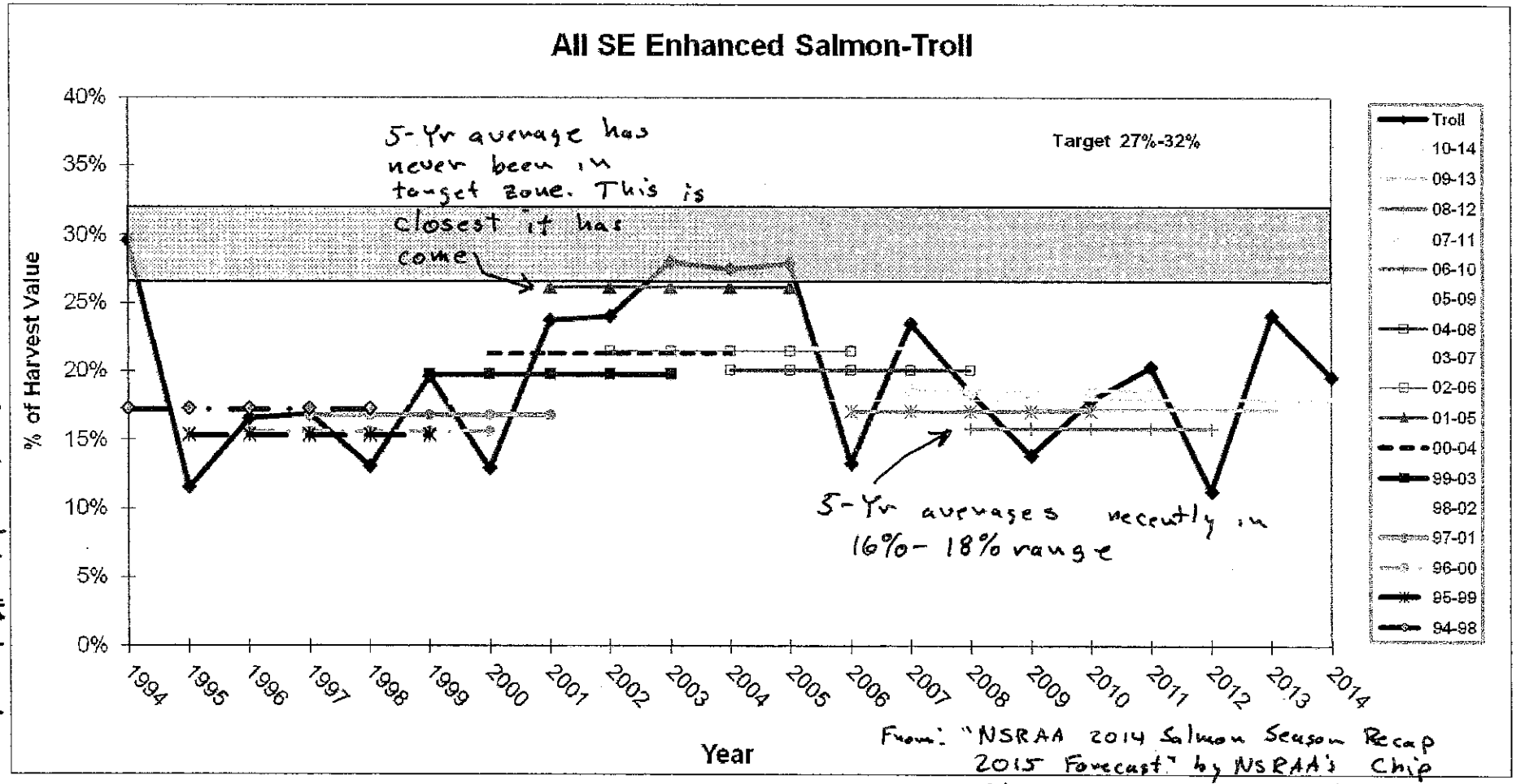
This is slide 10.

Supplementary Mat'l Prepared: 182, 183, 185 & 186
Footnotes 19-21

2014 Preliminary – Troll History

2014= 19.5%

most recent 5-year = 17.9 (Up from 17.2)

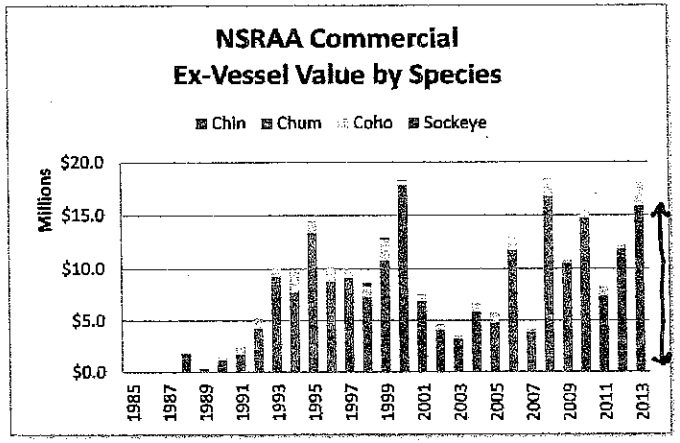


From: "NSRAA 2014 Salmon Season Recap 2015 Forecast" by NSRAA's Chip Blair. This is slide 11.

Supplemental Material Proposal 188 Footnote 24

Hatchery (All)
Gear (All)

Com Value Year	Species Chin	Chum	Coho	Sockeye	Grand Total
1985	$78				$78
1986	$1,100				$1,100
1987	$4,691	$1,391	$108,127		$114,208
1988	$15,584	$1,785,850	$17,085		$1,818,519
1989	$6,273	$328,636	$106,118		$441,026
1990	$38,320	$1,160,833	$315,426		$1,514,578
1991	$131,691	$1,587,266	$913,949		$2,632,907
1992	$259,522	$3,985,226	$1,073,534		$5,318,283
1993	$211,997	$9,002,236	$812,718		$10,026,950
1994	$334,428	$7,404,244	$2,218,825		$9,957,496
1995	$729,417	$12,626,489	$1,177,388		$14,533,294
1996	$967,977	$7,817,339	$1,406,211		$10,191,526
1997	$803,729	$8,332,635	$854,460		$9,990,825
1998	$226,343	$7,017,890	$1,014,795	$378,258	$8,637,285
1999	$391,810	$10,360,366	$1,928,858	$230,132	$12,911,166
2000	$767,076	$17,019,329	$444,051	$54,840	$18,285,296
2001	$667,599	$6,187,412	$632,956	$31,110	$7,519,077
2002	$484,423	$3,590,645	$527,787	$25,284	$4,628,140
2003	$367,641	$2,860,074	$377,062		$3,604,778
2004	$904,654	$4,955,719	$830,998		$6,691,371
2005	$756,149	$3,988,766	$984,635	$14,158	$5,743,708
2006	$444,768	$11,242,436	$1,390,523	$6,624	$13,084,351
2007	$851,847	$2,996,802	$318,841		$4,167,490
2008	$2,350,533	$14,390,639	$1,801,442		$18,542,614
2009	$765,043	$9,703,967	$350,715		$10,819,726
2010	$894,880	$13,810,676	$864,736		$15,570,293
2011	$1,317,722	$5,983,185	$987,154		$8,288,060
2012	$1,095,128	$10,707,118	$347,769		$12,150,015
2013	$1,585,273	$14,228,177	$2,220,445		$18,033,895
Grand Total	**$17,375,694**	**$193,075,346**	**$24,026,607**	**$740,406**	**$235,218,053**



This much is everything else!

This much is chum!

From: NSRAA Commercial Value by Species & Gear" Report from NSRAA website. This is page 2.

Chum has dominated NSRAA's production in recent years

Supplemental Mat'l
Proposal 188
Footnote 25

Appendix 3.–Production Tables.

		Releases			Cost Recovery		Common Property		Hatchery
BY	Eggs Collected	Southeast Cove SHA	Kake SHA	Return Year	Kake SHA	Southeast Cove	Kake SHA	Southeast Cove	return
1978	10,000		3,000						
1979	16,000		1,000						
1980	129,000		0						
1981	0		0						
1982	831,000		608,000						
1983	1,070,000		55,000						
1984	2,000,000		1,982,000		2,851		900		5,322
1985	8,400,000		8,110,000		19,638		2,518		46,721
1986	10,930,000		10,825,000		29,033		912		49,270
1987	10,856,000		10,752,000		37,111		1,536		58,825
1988	10,216,000		9,880,000		41,245		18,233		95,395
1989	12,008,000		5,644,000		9,755		18,337		48,012
1990	14,305,000		7,054,000		10,467		14,610		72,471
1991	14,256,000		13,119,000		30,031		2,085		65,619
1992	16,495,000		15,073,000		291,041		40,203		557,828
1993	16,292,000		13,981,000		241,768		43,056		365,983
1994	21,046,000	8,198,485	6,260,447		98,407		73,858		369,637
1995	43,932,000	28,914,600	6,744,470		251,153		128,194		512,968
1996	51,742,000	36,244,635	6,177,285		519,795		168,737		835,524
1997	66,739,700	47,528,221	6,360,760		323,395		41,390		364,839
1998	54,237,000	36,156,200	6,522,900		203,449		0		203,449
1999	70,614,000	54,526,806	6,395,219	1999	70,538	229,210	10,581	34,382	344,711
2000	71,560,000	36,941,430	6,476,062	2000	186,544	429,053	62,675	122,650	800,922
2001	54,250,920	34,951,864	6,476,062	2001	84,383	228,615	9,896	25,956	348,850
2002	44,655,000	31,841,655	6,556,146	2002	58,948	243,830	25,600	104,323	432,701
2003	75,783,000	45,234,731	6,562,396	2003	105,414	1,219,839	11,813	135,538	1,472,604
2004	36,208,000	23,469,265	6,710,670	2004	54,708	596,561	21,883	197,861	871,013
2005	24,814,468	0	5,086,391	2005	42,283	79,025	16,952	0	138,260
2006	45,884,872	26,802,293	8,876,563	2006	76,895	145,375	32,332	62,556	317,158
2007	24,740,082	9,717,483	8,651,228	2007	31,364	25,523	13,161	10,769	80,817
2008	7,607,960	1,000,000	6,112,117	2008	6,942	2,579	1,041	387	10,949
2009	55,000,000	46,395,837	8,000,000	2009	8,492	2,092	3,385	837	14,806
2010	17,309,590	9,000,000	6,000,000	2010	3,000	200	19,479	22,000	44,679
2011	30,000,000	22,000,000	8,000,000	2011	209	7,120	61,463	18,512	18,783
2012	55,151,585	18,446,625	7,289,595	2012	100	22,000	33,001	32,345	67,441

Notes:
1978–1998 numbers from 2004 AMP; some return data missing thru 1988.
1980 - Eggs destroyed in 1980 due to septicemia brought on by ammonia toxicity.
1981 - Hatchery built.
1976–1979 - Operated under a scientific-educational permit with Kake School district. Few eggs and few records kept.
1984–1987, 2001, 2009, 2010 - Received some eyed eggs from Hidden Falls Hatchery and/or Port Armstrong Hatchery.
1999 - Present production numbers from web page. Web page reports returns by return year and does not break down to brood year.
2000 - Old dam failure.
2001–2006 - Hatchery on temporary pipeline intake.
2006–2007 - New Gunnuk Dam construction.
2008 - Hatchery online in new dam.
2010 - Very hot drought conditions affected return (creek very dry).

Current permits & plans are for 55M. Recent historical releases have been much smaller.

From: Annual Management Plan Gunnuck Creek Hatchery 2013.
This is page 19.

Supplemental Mat'l
Proposal 188
Footnote 29

Hidden Falls Chinook Utilization - Andrew Creek Stock

Harvest Rates

CHINOOK YEAR	Troll	Seine	Gillnet	Sport	Cost Recovery	Rack	Other	Total	% Troll	% Seine	% Gillnet	% Sport	% CR	% Rack
1985	6	18	4	-	-	7	-	35	16%	51%	13%	0%	0%	20%
1986	123	-	9	45	-	9	12	199	62%	0%	5%	23%	0%	5%
1987	291	7	16	174	6	119	-	613	47%	1%	3%	28%	1%	19%
1988	201	40	3	31	32	167	-	475	42%	8%	1%	7%	7%	35%
1989	98	11	2	38	49	151	1	350	28%	3%	0%	11%	14%	43%
1990	228	1	56	48	61	271	4	669	34%	0%	8%	7%	9%	40%
1991	675	105	28	84	610	369	3	1,874	36%	6%	2%	4%	33%	20%
1992	609	0	16	48	302	1,096	4	2,075	29%	0%	1%	2%	15%	53%
1993	172	502	63	90	107	1,054	-	1,988	9%	25%	3%	5%	5%	53%
1994	1,030	1,323	705	922	548	3,612	50	8,491	13%	16%	9%	11%	7%	44%
1995	6,327	13,432	1,177	3,271	2,150	9,000	2	35,369	18%	38%	3%	9%	6%	25%
1996	17,192	15,639	414	264	2,598	5,236	115	41,458	41%	38%	1%	1%	6%	13%
1997	10,840	4,372	226	305	5,091	4,658	-	25,492	43%	17%	1%	1%	20%	18%
1998	2,312	4,750	76	342	1,387	2,539	2	11,409	20%	42%	1%	3%	12%	22%
1999	4,467	10,850	30	1,705	1,948	4,048	-	23,047	19%	47%	0%	7%	8%	18%
2000	9,874	16,008	335	1,199	7,766	4,123	-	39,304	25%	41%	1%	3%	20%	10%
2001	8,927	9,734	307	503	13,336	3,369	2	36,178	25%	27%	1%	1%	37%	9%
2002	6,589	8,440	228	560	2,162	5,473	-	23,453	28%	36%	1%	2%	9%	23%
2003	6,037	5,647	15	651	10,153	5,409	1	27,913	22%	20%	0%	2%	36%	19%
2004	5,114	5,968	500	957	12,029	4,280	50	28,898	18%	21%	2%	3%	42%	15%
2005	4,419	2,237	344	723	3,300	7,855	24	18,901	23%	12%	2%	4%	17%	42%
2006	2,529	3,347	120	581	1,096	2,337	3	10,013	25%	33%	1%	6%	11%	23%
2007	2,075	4,515	73	502	942	2,442	-	10,549	20%	43%	1%	5%	9%	23%
2008	2,475	4,584	270	329	1,375	3,242	-	12,274	20%	37%	2%	3%	11%	26%
2009	1,180	3,082	114	463	159	1,290	-	6,288	19%	49%	2%	7%	3%	21%
2010	1,879	2,343	201	340	229	1,865	-	6,858	27%	34%	3%	5%	3%	27%
2011	2,121	2,541	886	338	182	4,753	50	10,872	20%	23%	8%	3%	2%	44%
2012	2,056	3,676	750	525	-	2,520	50	9,577	21%	38%	8%	5%	0%	26%
2013	1,443	2,921	26	258	40	2,414	105	7,208	20%	41%	0%	4%	1%	33%
Total	101,290	126,093	6,995	15,297	67,668	83,708	478	401,529						
Avg. (1994-2013) (larger return years)	4,944	6,270	340	737	3,325	4,023	23	19,663	23%	33%	2%	4%	13%	24%
5-yr Average (2009-13)	1,736	2,913	396	385	122	2,568	41	8,160	21%	37%	4%	5%	2%	30%
10-yr Average (2004-13)	2,529	3,521	329	502	1,995	3,300	28	12,144	21%	33%	3%	4%	10%	28%

Some significant sport catchs, 15-20 years ago, but recent catch and total returns much lower

Page 1 of "Hidden Falls Chinook Utilization" Report from NSRAA website.

Supplemental Mat'l Proposals 226, 227 & 229 Footnote 39

State of Alaska
BOARD OF FISHERIES

Dear Members,

Please consider adopting the following salmon proposals at your upcoming meeting in Sitka.

Proposal 176.

Proposal 226.

Proposal 223.

I have trolled since 1974. Paid some enhancement tax over the years and have been glad to do it as enhancement has kept me in business. Proposal 176 I believe would help a fair and reasonable allocation process not only for trollers but the seiners and gillnetters too. Proposal 226 would also help the fair allocation process. Please vote yes for these proposals.

Proposal 176 if adopted would improve the economics for troll fish marketing, as more fresh kings could be available during August. I direct market fresh kings and having more product in August to sell would be advantageous.
Please vote yes on this proposal.

Thank you for your attention,

Jim Wild
Po Box 109
Elfin Cove, AK 99825

NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION, INC.

(907) 747-6850
FAX (907) 747-1470
EMAIL steve_reifenstuhl@nsraa.org

1308 Sawmill Creek Road Sitka, Alaska 99835

February 6, 2015

Board of Fisheries

February 23 – March 3, 2015
Finfish Sitka, Alaska

Re: Support for Proposals 177&178, 179&180, 198; and opposition to 175, 176, 188, 193, 199, and 200

Dear Vice Chairman Kluberton and Board of Fish Members:

Northern Southeast Regional Aquaculture Association (NSRAA) has an elected board of sixteen fishermen representing all salmon permit holders in southeast Alaska; the board also has 9 appointed seats representing a broad interest of sports, subsistence, municipality, Native organization, conservation, and two interested persons. NSRAA submitted two (2) proposals which we continue to fully support.

NSRAA **supports** the following proposals:

NSRAA Proposal 177/178 – Establish a closed area to common property fishing in a small portion of NSRAA's **Mist Cove** Terminal Harvest Area due to safety and liability issues. This is best viewed with the map included in the proposal. The specific area outlined in lat/long were vetted with ADF&G and have been used as a closure line/area in the past couple years. This proposal was submitted online and apparently a glitch entered the proposal twice; proposals are identical.

NSRAA Proposal 179/180 – Establish a closed area to common property fishing in a small portion of NSRAA's **Hidden Falls** Terminal Harvest Area due to safety and liability issues. This is best viewed with the map included in the proposal. The specific area outlined in lat/long were vetted with ADF&G and have been used as a closure line/area in the past couple years. This proposal was submitted online and apparently a glitch entered the proposals twice; proposals are identical.

ADF&G Proposal 198 – Establish closed waters in regulation near Angoon referred to as Parker Pt to Pt Samuel and an area encompassing Basket Bay on the Chichagof shoreline. These areas have been closed to seining for most of the past ten years and this proposal

formalizes it in regulation.

NSRAA **opposes** the following proposals:

Oppose Proposal 175 – This proposal asks the Board to set up a task force to evaluate the Southeast Alaska Allocation Plan established in regulation in 1994. The 1994 agreement took three years of diligent work, long hours, and was agreed to by consensus of the six representatives – two for troll, two for gillnet, and two for seine. Currently, these same representative groups do not want to open up the Allocation Plan. The NSRAA board voted unanimously in opposition of this proposal. There is simply not support in the commercial fishing community to renegotiate the Allocation Plan.

Oppose Proposal 176 – This proposal asks NSRAA and Douglas Island Pink and Chum (DIPAC) located in Juneau to create a harvest management plan to address the troll imbalance vis-à-vis the S.E. Enhanced Salmon Allocation Plan. A major problem with this proposal is it is in conflict with regulation **5 AAC 33.364** SE Allocation Plan. **5 AAC 33.364** defines allocation of enhanced salmon as a region wide plan encompassing all of southeast Alaska. All the major fishing groups oppose this proposal – SEAS (seine), USAG (gillnet), ATA (troll), NSRAA, SSRAA, and DIPAC. The group proposing this action is an outlier.

Each enhancement organization implements programs as directed by their board of directors. There are four major enhancement Private Nonprofits (PNPs) and two smaller PNPs in southeast Alaska, all contributr to common property fisheries.

It is important to note that the enhancement program in southeast Alaska is benefiting all fishermen beyond original expectations. For every dollar fishermen pay in via the 3% SET tax, the benefits accrue at $6, or a 6:1 benefit to cost. It is true the benefits are not accrued evenly but neither are the expenditures. Troll programs were developed around coho and Chinook and at NSRAA represent 46% of the budget, primarily because those species require being held at the hatcheries three times longer and therefore are much more expensive to raise. New programs and management changes have been developed to increase production and opportunity for the trollers.

There is also the issue of gear efficiency differentials and opportunity costs. For example in years when coho are in great abundance and of high value the best economic opportunity is targeting coho and perhaps not targeting a chum. Some years this gets flipped on its head and chum price and abundance creates the best opportunity. Species price differentials change fishing behavior. It is a complex issue and the fishermen boards and the Regional Planning Teams are the best venues to address and resolve issues.

The NSRAA board opposed this proposal unanimously.

Oppose Proposal 188 – NSRAA operates the permit for the Southeast Cove Terminal Harvest Area and does not agree with this proposal that dictates specific harvest gear type and harvester schedule. This is within the NSRAA board of directors' purview and our preference is to have the flexibility to execute harvests as the fishermen board considers is in the best interest of the organization.

Southeast Cove is a new program for NSRAA and at this time and for the next four years the Alaska Department of Commerce owns a portion of the returning fish due a debt obligation by the former operator. Therefore the only fishery allowed in the next four years is a cost recovery fishery with tight controls over the harvest and sampling of the catch to determine one of two mark origins – Gunnuk Creek (Commerce ownership) or NSRAA. At the termination of Commerce's lien in 2019, NSRAA would prefer to have the option to put any combination of the three gears – troll, seine, and/or gillnet – in the terminal area depending on the allocation situation at that future time.

The NSRAA board at its November 2014 meeting unanimously opposed this proposal. At this same meeting the board passed a motion to provide chum trollers with six days per week at our new program in Crawfish Inlet, a program that comes on line with adult returns in 2018, well before the opportunity at SE Cove.

Oppose Proposal 193 – This proposal limits seine openings in northern districts to a maximum of one opening per week and precludes any openings in three subdistricts.

The proposal contends that the seine fisheries intercept large numbers of the Kanalku sockeye stock in seine fisheries north of Angoon particularly in Districts 12 and 14. This proposal was submitted months prior to the ADF&G *Genetic Mixed Stock Analysis of Sockeye Salmon Harvests in Selected Northern Chatham Strait Commercial Fisheries, 2012-2014.* This report using precise genetic stock identification for the northern sockeye stocks including Kanalku shows a very different picture than what the proposer speculates.

The 2013 seine season was the largest seine harvest in history when some 90 million pink salmon were caught, whereas the Kanalku catch sample expanded to less than 1% of the total sockeye caught in the sampled northern districts. In 2012 and 2014 the Kanalku catch was significantly less, given there were few seine openings.

The escapement to Kanalku Lake for the study years was 1,938 to 2,289 sockeye. Kanalku is a unique system due to its barrier falls which often prevents 50% of the fish from entering the lake. During the study years the sockeye making it into the lake was 1,100 to 1,400. It is thought but not known definitively by limnological studies that these escapements are adequate to meet the lake's rearing potential.

Most importantly ADF&G has closed waters by time and area to seine fishing in order to allow Kanalku and other sockeye stocks to pass. In June and early July few areas are open

for seining, a time when many sockeye pass into terminal areas. ADF&G's *Nothern Chatham Strait Sockeye Salmon: 2014 Updated Stock Status, Fishery Management, and Subsistence Fisheries* presents escapements, fishing districts, opening dates and subsistence harvest which demonstrate the department's wise use of management tools and the results they deliver for Kanalku sockeye escapement and subsistence opportunity.

The NSRAA board unanimously opposed this proposal. The Sitka AC opposed this proposal 10:0 with 2 abstentions.

Oppose Proposal 199 – This proposal eliminates purse seine gear in the Possessory boundary as defined in Goldschmidt and Haas, 1946, and area covering much of Chatham and Peril Straits corridors.

Please see comments for #193 above; these comments apply to #199 and #200. The NSRAA board unanimously opposed this proposal.

Oppose Proposal 200– This proposal eliminates purse seine gear in the Admiralty Monument Proclaimation Boundary which defines all but the waters on the northern end of Admiralty Island.

Please see comments for #193 above; these comments apply to #199 and #200. The NSRAA board unanimously opposed this proposal.

I would like to serve on committee with regard to these proposals if the board deems committee work necessary.

Sincerely,

Steve Reifenstuhl
General Manager
Northern Southeast Regional Aquaculture Association

REFERENCES & LITERATURE CITED

Bednarski, Julie; Harris, David; & Heinl, Steven, 2014. *Nothern Chatham Strait Sockeye Salmon: 2014 Updated Stock Status, Fishery Management, and Subsistence Fisheries*. Division Commercial Fisheries of Alaska. Alaska Department of Fish and Game, Regional Information Report No. 1J14-10, Douglas, AK.

Gilk-Baumer, Sara; Olive Serena D.; Harris, David; Heinl, Steven; Fox, Elisabeth K.; Templin, William D. 2015. *Genetic Mixed Stock Analysis of Sockeye Salmon Harvest in Selected Northern Chatham Strait Commercial Fisheries*, Southeast Alaska, 2012 – 2014. Divisions of Sport and Commercial Fisheries of Alaska. Alaska Department of Fish and Game, Fishery Data Series No. 15-03, Anchorage.

Alaska Board of Fisheries
P.O. Box 115526
Juneau, Alaska 99811

February 4, 2015

Comment in **Support** of **Proposal 157**, Southeast and Yakutat Finfish Meeting

Dear Board,

I am the proposer of this regulatory proposal and unfortunately could not attend the Sitka meeting. My intent is to reduce the mortality of King Salmon due to the large number of King salmon encountered in the sport fishery just under the regulatory 28-inch minimum size limit. A released mortality rate of 25% has been attributed to Kings released in good condition in the commercial fishery, however many King that are netted in the sport fishery face a greater mortality than 25%.

My initial thought when I wrote this proposal was that a phenomenon that is being seen in other fisheries, that of a reduced size-at-age, may be similarly occurring with King salmon. After discussions with Ed Jones of DFG, there seems to be little evidence that this is occurring and upon researching the rationale for the 28-inch minimum size limit, I found that it was a policy decision back in the early 70's to increase the sport minimum size limit, which was 26 inches at the time, to 28 inches to align with the commercial King salmon fishery increase to 28 inches; the thought being to protect 2-year ocean fish and to target 3-year and older ocean fish.

Joe Orsi, NOAA fisheries researcher who has been studying King salmon for over 30 years, has presented one of the explanations for the recent decline in King salmon abundance may be attributed to the culling out of genetically predisposed large and fast growing 2-year ocean fish by the setting of the 28-inch minimum size limit. These fast growing and abundant 2-year ocean fish are potentially reaching 28 inches in the fall of their second year, which means they are just less than 28 inches for most of that summer. By having to release these fish, this regulation is contributing to a significant decrease in the future yield of these genetically superio fish, leaving only slow growing and small fish to recruit into the fishery. Please see the attached Juneau Empire interview with Joe Orsi for a more complete discussion of this issue.

I urge the Board to consider reducing the King salmon minimum size limit to 26 inches for the reasons stated above or direct DFG staff to further investigate the potential benefits of such a regulatory size reduction.

Regards,

Richard Yamada

Richard Yamada, Southeas Alaska Lodge Owner

Additional Affiliations: Alaska Charter Association, Juneau Douglas Advisor Committee

A king without its crown

Examining the forces and factors contributing to the decline of Alaska's king salmon

Posted: December 29, 2013 - 12:07am

By Abby Lowell

JUNEAU EMPIRE

Editor's note: This is the ninth in the Morris Communications series, "The case for conserving the Kenai king salmon."

Alaska's long-lived monarch — the king salmon — has fallen from its throne.

The species, which once thrived as a fabled ruler in state waters, was sought-after by fisherman from all over the world. Their massive presence in rivers like the Kenai, the Yukon and the Taku, to name only a few, brought sport and commercial fisherman to banks and river mouths for a chance to harvest this mighty resource.

The largest known king — weighing in at 126.5 pounds — was caught in a fish trap off Prince of Wales Island in Southeast Alaska in 1938.

Today, fish of that caliber are seemingly nonexistent. Alaska has seen unprecedented declines in recent years resulting in declarations of economic disasters in some regions, or simply empty freezers in others. Researchers, management officials, commercial fisherman, subsistence users and sport fisherman are coming to the same conclusion: the fish are fewer and the sizes smaller.

That's why scientists like Joe Orsi and Jim Murphy, both fisheries research biologists with the National Oceanic and Atmospheric Administration, are digging deeper into decades of research to put forth evidence and findings that may lead to a solution or at least a clue to the cause of the startling downward trend.

Orsi has studied chinook salmon (Oncorhynchus tshawytscha) for nearly his entire career. As part of NOAA's Ecosystem Monitoring and Assessment Program he has helped to gather data for the Southeast Alaska Coastal Monitoring project, which aims to understand and examine ocean conditions and the factors that affect king salmon. He and his team collected and sampled juvenile salmon, migrating through Southeast Alaska waters since 1997.

He said the first step to understanding what factors and forces may be affecting the chinook is to take a look at the ecological niche they occupy.

"Chinook salmon are different from the other salmon species," he said. "For instance, they tend to prefer colder, deeper waters than the other four salmon species, and they're more long-lived. So that takes them to different parts of the ocean."

Kings are also primarily fish-eaters, while the other four species of salmon feed on invertebrates. The coho, for instance, migrate far into the Gulf of Alaska to prey on squid.

Second, it is important to understand the life cycle and migration trends of this species, Orsi said.

Scientists speculate that king salmon migrate great distances during their time in the ocean, although the exact patterns of migration are still largely a mystery. Historically, before the construction of dams on the Columbia and Snake rivers in the Pacific Northwest, kings from those systems would be caught in Southeast Alaska waters. In an article published this spring, Orsi references "one exceptional chinook salmon stock harvested in this fishery, the Columbia River 'summer hogs,'" which he said was a summer run fish that returned to the Columbia at an average weight of 30 pounds.

Today, fish from those stocks continue to show up off the outer coast of Southeast Alaska and are comprised of both hatchery and wild stocks from the Columbia River, as well as other rivers from Oregon and Washington, Ron Josephson said.

Josephson has worked as the section chief for the Alaska Department of Fish and Game's hatchery program for over a decade, from 1998 to 2009. During that time, he supervised the department's coded wire tag lab, where recovered tags were processed.

His team found chinook stocks from the Pacific Northwest spent "much of their time in the Gulf of Alaska, based on tag recoveries," Josephson said. "The biggest abundance of chinook is found in 'outside waters' and not surprisingly, that's where they are caught."

Researchers also know kings typically move northward and westward in the ocean with respect to their stream of origin. So a juvenile king salmon

leaving the Kenai River, for example, would likely spend a portion of its time in Cook Inlet before later moving westward down the Alaska Peninsula or possibly down the Alexander Archipelago toward British Columbia or Washington. They also know king salmon hang closer to coastlines than other species.

But when it comes to digesting down the impacts affecting the productivity of king salmon in Alaska, both Orsi and Murphy said it's tough, to say the least. Many of the impacts affecting king salmon in the state are unique to particular stocks; each group will migrate in a different pattern during their five-year tenure in salt water. Hence, each king salmon, as it follows its unique migration pattern, will encounter different influences, factors and hurdles, and to varying degrees. And stocks that migrate in the Bering Sea, for instance, do not show up in Southeast. And those that originate in Cook Inlet aren't caught off the coast of the panhandle — at least not that often. Both researchers said it's unlikely the movements of the juveniles in the BS and the GOA interact much over the course of their lives. Furthermore, there's just not a good way to accurately monitor the timing and pattern of how each stock moves. Orsi said they know what research needs to be done, they just don't have access to the proper technology to do so.

In contrast, look at sharks in Hawaii. This year, researchers have been able to fit sharks with satellite tracking devices to monitor their movements, and real-time updates are available regularly. But when it comes to king salmon, Orsi said even the bigger ones are not large enough to support the size of most satellite devices. However, such a technological development may be on the horizon, he said, providing opportunities for scientists to monitor exactly where Alaska's king salmon are swimming.

This summer, Kintama Research Services, a company which utilizes underwater acoustic telemetry arrays to monitor the movements of marine species, tagged chinook and sockeye salmon in Cook Inlet. While this research is a relatively new application for Alaska, the company has been using this type of monitoring in the Pacific Northwest since about 2006 to track a portion of the migration route of tagged chinook smolt leaving the Columbia River, or to monitor returning sockeye salmon runs off the island of Haida Gwaii.

"Once we know where they are going and when, we can better identify the interactions they face and subsequently provide better recommendations for management tools," Orsi said.

Murphy, a researcher who has studied Southeast stocks, but has more recently focused on Bering Sea kings, said the species doesn't live up to its mighty moniker.

"Kings are very fragile, the most timid fish in the river," he said. "Chums, for instance, will just barrel through … even a tiny shadow will cause the kings to scatter."

Physically, Murphy said the kings are also not as stout as they seem.

"We catch these fish in trawls," he said. "They're beat up, so they lose a lot of scales. The coho we catch are tanks — they're just tough. All the kings are just … dead."

Yet the Chinook have evolved with resilience to colder waters, Orsi said.

"In the winter time, they can go to areas that other salmon can't go to because they can tolerate the colder temperatures," he said.

That's also why they like to swim deep in the ocean column, and where commercial and sport fisherman have learned to target the species with downriggers that take herring-baited hooks down to where the juveniles are feeding.

Potential factor number one — encounter rates

"Most recently, there's been more use of downriggers than ever and more targeting of immatures that are revolving around through fisheries," Orsi said. "And as a result, the encounter rates are increasing."

In other words, fisherman and king salmon have been interacting more and more over the course of the five years they spend maturing in the ocean. And more interactions mean more potential for mortality.

Officials have also set a size limit of 28 inches on the king salmon in Alaska, meaning only fish that size or larger may be harvested.

Orsi said the harvest size requirement is another factor that could be contributing to population declines throughout the state.

"What that does is it tries to ensure that the fish basically live three ocean winters before they are harvested in the spring, so a three-ocean fish in May is probably always 28 inches or larger, which I think is a good assumption," Orsi said. "But the flipside of it is, the really fast-growing two-ocean fish will grow into that size limit in the fall."

Those fast-growing fish are being culled from the population, which over time removes from the existing population the genetic predisposition to grow king-sized.

In order to retain the characteristics most valued in king salmon — large size, for example — it's not in the best interest of fishermen to harvest fish which most readily show those characteristics, Orsi said. Instead, he and others have suggested that current management techniques — specifically the size limit of 28 inches — are set up to fail over long periods of time. We may be starting to see the effects of harvesting the largest and fastest-growing fish, he said.

"If they're genetically predisposed to grow fast, that's why they're reaching legal size in two-ocean winters and we're taking those out of the population continually and you add a few decades on there and pretty soon, fish start getting smaller," Orsi said. "That's one of those concepts examining how the increased fishing effort using size limits is having on productivity, because we may be having the same size fish coming back, and their fecundity — the amount of eggs they have in their skeins — is lower too because the females are smaller size."

Fewer eggs being laid by smaller females have effects that go beyond the obvious. Not only can they not produce as many eggs as their larger counterparts, but they also cannot swim up the strongest of currents or carve out redds quite as deeply. Hence, the eggs that do get deposited may be further downstream in areas that might be more congested and that means increased competition. Additionally, it's likely the eggs from smaller females will be deposited in shallower redds, ultimately lessening their chance at survival, Orsi said.

Back on the open water, commercial fisheries have expanded and developed over the decades in Alaska. For example, there's now a chum salmon troll fishery in Southeast's Icy Strait that targets adult returning chums.

"Well there are also immature chinook out there, too," Orsi said. "They're being handled and released … and there is increased charter fishing everywhere. You have to ask the question: What's the mortality of those fish that were handled?"

Orsi and his team launched a series of studies to determine just that. Essentially, the team observed commercial troll-caught-and-released king salmon in marine net pens after their release.

"When they release a fish, they bring it up out of the water and they grab it with the crook of the gaff, and they shake it off, so there's one hook point into it, and the fish is rolled out — they're pretty good sized hooks, too — and what we had them do is roll them out into a tub, and we assessed the injury location at the time of shaking, and then the fish were run out to net pens where they were tagged and transferred into the net pens and then they were observed for three days."

After that time the fish were released en masse — the ones that could, anyway. Orsi said the dead ones were tallied, as were the dead on arrival, and the team came up with mortality estimates for that fishery. They found 20 percent of legal-sized fish died after being released, as did 25 percent of sub-legal fish.

The larger fish (those of legal size) had a higher likelihood of surviving a commercial fishing encounter, and in this case, an encounter with a trolling boat. But those of sublegal size (28 inches or smaller) were less likely to survive, based on Orsi's findings. He said it comes down to the location of key features on the fish, such as the eye and the gill arches, which may or may not come in contact with a gaff or fishing hook. A smaller fish has features that are closer together and a "frisky" attitude that raises the potential for injury. He found a king may swim away just fine immediately after being released, but within three days that fish may die anyway from injuries sustained while being caught, or face predation due to being impaired from the interaction.

"That's a one-time hook and release," Orsi said.

Just one. Over the course of a king salmon's time in the ocean, this type of interaction has the potential to could occur hundreds, if not thousands of times.

"When we do studies in Icy Strait, we see injury locations on fish that have been released. We know that it's happening. Then you look at the sport and charter fisheries. Many of those fish get handled by a net, which is not good for fish that are immature and have real deciduous scales; they flake off easily. If you use a knotted dip net on a fish and you peel of 20-30 percent of the scales, chances are it's probably going to die," he said.

The importance of scales on a fish is paramount. It protects the fish from bacteria and parasites, but it also supports proper osmoregulation, which regulates the proper salt balance internally.

An improper balance "will stress them out the make them more vulnerable to predation," Orsi said.

The inexperienced fisherman

When it comes to catch-and-release, commercial fishermen are quite adept at the process — they have to be. But sport fishermen may not have the process down pat.

"Imagine someone picking a fish out of the water — with two hooks in it — off a herring, it's wiggling around in a dip net, it's pulled in the boat, bouncing around, get it back, measuring it to see if it's legal, get it back over the boat (for release). … I suspect the mortality on fish that encounter those situations is higher than what we saw on troll-caught fish," he said.

Consider the predation factor, too, Orsi said. "The fish may seemingly swim away just fine, but if they have an eye rupture, for example … We don't see too many one-eyed fish coming back to weirs or that you catch on a hook-and-line. They just don't survive."

The most dramatic example of size selection affecting the size of returning king salmon, according to Orsi, is the proliferation of salmon derbies in the Southeast region and around the state.

Of the historic derbies in Alaska's panhandle, the Golden North Salmon Derby is perhaps one of the most well known. According to an article written in 1989 by Karleen Alstead Grummett titled "The First Golden North Salmon Derby," the initial derby kicked off in the summer of 1947 and was organized by the Territorial Sportsmen, in an effort to "establish Juneau as the greatest tourist and sports center in Alaska." The winning prizes, a 1947 Plymouth "Deluxe" automobile and an outboard boat and motor, to name a few, went to the participant who turned in the largest

king salmon. That year, on Sept. 7, Dick Harris was proclaimed the winner with a 38-pound, 4-ounce king salmon. In 2013, the winner of the Golden North Salmon Derby turned in a 29.2-pound king, the largest the derby had seen since 2008.

Orsi said organizers of the Golden North Derby have made efforts to preserve the region's king salmon stocks.

"Around the 1970s, (the derby) was shifted to occur in August, instead of earlier in the year, because of conservation issues," he said. "The adults were declining in numbers."

Today, king salmon derbies are held in nearly every community in Southeast Alaska; two are annually held in Juneau. Private lodges, too, will hold Chinook salmon derbies for guests. Derbies continue to be held farther up north, such as the Winter King Salmon Tournament in Homer, an event that has been held annually for 20 years.

Regardless of where the derbies are held, each event clings to the historic trend of catching and awarding fisherman for turning in the biggest fish.

"All (the derbies) are selectively pulling the large fish out of the population," Orsi said. "So, it may not seem like it at the time — and I'm guilty of it too — but all these little incremental ticks against the population could be catching up with us. I know of folks who will actually sort through fish during derbies to keep the biggest one. So, (the participants are) releasing fish because they are not going to win them a prize. At the same time, as they release them, they could be imparting mortality."

Orsi supports the idea of catch it, keep it, call it good enough. Instead of having a derby based on fish weight, he suggested organizers should consider running the event like a lottery, where fish of legal size are turned in and a winner is selected at random, like drawing a name out of a hat.

In short, the idea prevents participants from not only pursuing only the largest fish, but also aims to prevent hook-and-release encounters.

One big mixing pot

While not much is known about the specific migration patterns, scientists do believe the stocks mix to some degree. Hence, similar factors could be affecting both Kenai River and Southeast Alaska stocks.

"These factors would be the ocean conditions or distant coastal fisheries where both stocks might be present, such as areas off Kodiak and in the western Gulf of Alaska," he said.

When it comes to fisheries in Alaska, fishing pressure is consistently put "on two-, three-, four-, five-ocean fish all at once," he said.

"It's not like it's a returning stream (of king salmon) coming back," he added. "So you have multiple age classes that are being affected."

In other words, current commercial and sport fishing practices aimed at ocean swimming chinook are not effectively targeting only the most mature fish, which would be ideal to ensure that younger kings have a chance to fully develop. Whether it's the trollers or trawlers, the gear is being set deep enough to reach juvenile king salmon of varying age. As the fishing pressure increases from each user group, so does the potential for encounters and subsequently the potential for increased mortality.

Meanwhile, farther north

While researchers may not know the exact forces and factors contributing to the decline in both abundance and size of Alaska's king salmon, one thing is for sure: the stocks that swim in the Gulf of Alaska and those that swim in the Bering Sea don't face exactly the same challenges.

"It depends on the stock group and the factors they get exposed to," Orsi said.

His counterpart at NOAA, Jim Murphy, has spent more than a decade studying the kings that swim the waters of the Bering Sea. From his perspective, Murphy sees the chinook salmon as one quite unlike any others — the mighty king is actually quite fragile.

"Chinook salmon are an entirely different beast than the other salmon," he said. "They like their protein (and therefore) are piscivorous, meaning they feed on fish, much more so than other species. Even the small chinook, they feed on fish prey very early in their life. In Southeast they'll feed on invertebrate prey and fish prey, when available. In the northern Bering, there's not a lot of invertebrate prey. (Instead) they're feeding on the larval fish. That holds true for most of their life."

Murphy said it is this protein-rich diet, which mostly consists of a small oil-rich fish called a capelin, that may be contributing to their decline. More specifically, a little enzyme found in high concentrations in the capelin may be causing a vitamin deficiency in king salmon.

The enzyme is called thiaminase and it effectively breaks down thiamine — vitamin B1 — rendering it impossible to be absorbed by the body. But, as Murphy explained, thiamine is vital.

"It's what's used in the Krebs cycle, a basic biochemical dependency that all animals have," he said.

Vitamin deficiencies are rare in wild populations due to the variety of foods consumed. Yet Murphy said these types of deficiencies have been well studied and documented in the Great Lakes, and researchers have been able to link population crashes of Great Lakes salmon to a deficiency in thiamine. Similar shortages crop up in groups of animals kept in captivity, as well.

"In the embryonic development stage is when it's most vital," he said. "In some cases it causes complete mortality. In other cases (the fry) would have impaired vision, or an immune system that is compromised — all of which would arise from thiamine deficiencies in the eggs."

All nutrients for a healthy egg and embryo come from the female, Murphy said. When he and his team examined thiamine tallies in king salmon eggs, they found average levels showed evidence of some deficiency.

He and his team have also studied the diets of juvenile chinook in the northern Bering Sea and found 70 percent of their diet consists of capelin.

"That hasn't always been the case," he said. "But it is true they are very dependant on fish. Hence, they always run the risk of becoming deficient."

Yet in the early 2000s, research indicated there was no deficiency, Murphy said.

"That's important; the 2001 brood run on the Yukon River was reasonable — about two recruits per spawner," he said. "Right now, and the way it's been for the past six to seven years, the returns per spawner are just above one. In other words, the fish are barely replacing themselves."

At that rate, one cannot harvest, he said. "It's obvious there is a significant issue with the productivity of the Yukon."

When it comes to the historic size of kings on the Yukon, most accounts will share the same story — they were prolific and huge. But Murphy, like Orsi, points out the long-term and highly effective use of gillnets, which have been widely used on the lower Yukon, to harvest the largest fish. Others in the state have said the problem was compounded by the widespread use of drift nets beginning in the 1970s as a likely factor that contributed to the decline in king runs.

"There's no doubt (gillnets) had a culling effect by removing the large females and males from the population for many years," Orsi said. "And (the Yukon) stock may have lost that large size component because of it."

These days, the 2013 regulations on the lower Yukon River restrict gillnet size to six inches, according to the management strategies outlined in the Alaska Department of Fish and Game Yukon River Salmon Fisheries Outlook. It's a reduction from years past.

"But if you think about it, the (larger fish are) an ecological legacy in that they may have gone to areas way up the river in faster water, selected bigger cobble to spawn in that smaller fish just couldn't utilize," Orsi said.

He said influences on Yukon stocks such as these — aggressive selective fishing that went on for so many years — may have already altered the makeup of the population.

Yet Murphy said tightened management of the Yukon River king runs, including blanket fishing closures, reduced mesh sizes on nets and the closure of other fisheries, such as the strong chum fishery, were all good steps to take toward rebuilding a struggling population.

Murphy shares some of the same concerns voiced by Orsi about incidental catches on the river leading to increased mortality rates, especially when one factors how many miles those fish have left to swim and spawn.

For years Alaska has had a king salmon management agreement with Canada that outlines how many chinook should pass over the border on the Yukon. It's all about making sure enough salmon reach their natal spawning grounds.

"They've not been able to meet the border passage requirements and they haven't been making them consistently over the past few years," Murphy said. "That has an undesirable effect down the road because you're not allowing spawners."

It's not all dismal, however. Murphy said the effects felt as a result of selective harvest are not irreversible and the right management techniques could see a potential reversal of trends within a few generations.

Cooling waters

Since 2002, Murphy and his team have conducted surface trawl surveys in the Bering Sea to assess, along with the Japanese and Russians, the ecology of the area and the abundance of juvenile chinook leaving the river.

A paper published this year, titled "Linking abundance, distribution, and size of juvenile Yukon River Chinook salmon to survival in the Northern Bering Sea," authored by Murphy and others, points to the fact winter and spring ice in the Bering Sea had not declined. Instead, the authors found the opposite to be true; the extent of winter and spring sea ice had actually increased in recent years.

In other words, the Bering Sea has cooled.

Juvenile king salmon primarily use marine habitat on the eastern Bering Sea shelf to feed, according to Murphy. But colder water means sea ice is forming a bit sooner and staying a bit longer, subsequently forcing young kings to either limit their migrations or forage in fewer places, or both. Traditionally, according to Murphy, their conventional forage habitat is in the northern Bering Sea.

"Sea ice begins to form in coastal habitats utilized by juvenile chinook in early November and the entire northern shelf is ice covered by early January," Murphy wrote.

Those that do migrate too far north, or accidentally get trapped by the ice, are facing death due to the freezing water temperatures. But since king salmon stocks in the Bering Sea feed primarily on capelin, which grazes on plankton hanging near the edge of the ice shelf, it makes sense the

young salmon would also swim nearby.

The paper also indicates the cooling of the Bering Sea is altering the migration range of juvenile chinook. A graph showing distribution patterns from surface trawl surveys on the eastern Bering Sea Shelf from 2002-2007, a time when the sea was warmer, show strong distributions of fish stretching from Bristol Bay to north of the Bering Strait. Yet the same surveys done from 2009-2011, at a time when sea water temperatures were lower, show limited distributions of fish and at lower concentrations. This time, juvenile kings ranged from roughly Nunivak Island in the south to Point Spencer in the north.

In addition, Murphy and his team found a high mortality rate for juvenile king salmon. Murphy also found juvenile abundance and size were lower in colder years.

“If the juvenile numbers are tracking with the numbers of adults coming back, it can provide an indicator for management,” Murphy said. “It helps to identify when and where are the critical periods. Is it happening in freshwater? Or is it tied to something that is happening offshore?”

Another one of his main areas of concern are the Asian hatcheries, which use the Bering Sea as a summer rearing area for hatchery chum salmon.

With surveys, Murphy said he’s been able to show the number of juveniles can provide an indicator for adults down the road. “It’s correlated with the adult return,” he said. “Which implies whatever factors are impacting them, are happening prior to their first year at sea.”

What he’s not sure of, he said, is whether it’s happening in the river or in the estuaries.

Bycatch

For many years, bycatch has been to blame, or so it seems, for the production decline of king salmon in Alaska. In response, fisheries managers have implemented monitoring plans, sampling guidelines and catch caps to help regulate incidental catch of chinook in fisheries such as pollock in the Gulf of Alaska and chum salmon in the Bering Sea by trawlers.

According to ADF&G Commissioner Cora Campbell, there have been solid improvements to the methods for collecting chinook salmon bycatch samples in the Gulf of Alaska.

“The 2014 observer plan changes the methods for collecting chinook salmon samples in the GOA to improve the representativeness of the samples and increase the number of samples,” she said. “For vessels with less than 100 percent coverage, (the National Marine Fisheries Service) will sample chinook salmon from randomly selected observed trips for both pollock and non-pollock trawl vessels. NMFS will not rely on dockside observers for genetic sampling and will instead put all resources toward at-sea coverage, which should result in a considerable increase in the number of genetic samples obtained.”

She said they expect to generate more than three times the number of samples.

Indeed, the sampling of bycatch done by observers does reap valuable information, such as the DNA samples referenced by Campbell that could help scientists understand what stocks are being incidentally harvested.

Yet of the recent papers penned by longtime researchers such as Orsi, few mention bycatch directly as a factor in the decline of king salmon production in Alaska.

According to Orsi, there’s not quite enough being done with the samples being gathered from king salmon bycatch. In a letter he penned to the 2012 Chinook Salmon Symposium organizers Eric Volk and Robert Clark, he pointed out one hurdle in particular: “Scales are sampled in the bycatch from federal fisheries, but there is presently no project to digitize or read them.” Digging into this information would reveal, he said, if compounding fishing effects occur regularly in particular ocean stocks of kings and in particular age groups, such as juveniles.

“It is conceivable that the same brood year of a given Chinook salmon stock from Cook Inlet is encountered and harvested at ‘low’ levels in the bycatch of both the (Bering Sea) and (Gulf of Alaska) trawl fisheries over successive ocean years,” he said, “thus having a compounding effect on the stock’s overall productivity.”

His point circles back to the issue of size limit and underscores the importance of identifying where exactly certain stocks of kings migrate in Alaska waters and when.

Fukushima

Since 2011, when a large-scale earthquake off the coast of Japan sent a tsunami of devastating proportions careening into the country’s coastline, the Fukushima Dai-ichi Nuclear Power Plant has been leaking nuclear waste into the Pacific Ocean. Current reports from news outlets around the world have said leakage continues today, with some indicating the waste is as prolific as ever.

In August of 2013, the Juneau Empire penned an editorial that took a surface look at what may be happening in the Pacific surrounding to the flow of currents and the migration patterns of marine life. In short, they urged officials, as well as state and federal agencies “to be proactive about conducting research and monitoring our salmon species.”

When asked about the potential impact Fukushima may be having on king salmon stocks in the Gulf of Alaska and elsewhere in the state, Orsi would not comment.

"I've been told to refer you to the (Environmental Protection Agency)," he said, "Because I'm not an expert on the topic."

Calls and emails to the EPA were not returned in time and digging on the federal agency's site revealed no current information on radiation from the Fukushima disaster. The last posted monitoring results occurred in June of 2011. In a report issued by the EPA after the disaster, the agency stated the "Japanese sand lance is only fish that exceeded radiation standards — does not migrate … Migratory patterns of North American Pacific salmon most commonly do not reach the coastal or offshore waters of Japan. … The majority of Alaska salmon spend most of their ocean residence in the Gulf of Alaska."

In a September 2013 update from the Food and Drug Administration, the FDA stated it "has no evidence that radionuclides from the Fukushima incident are present in the U.S. food supply at levels that would pose a public health concern. This is true for both FDA-regulated food products imported from Japan and U.S. domestic food products, including seafood caught off the coast of the United States."

The notice went on to state the FDA is not advising consumers to alter their consumption of particular foods "imported from Japan … including seafood."

So while it appears seafood is safe to eat, it remains unclear if there are factors negatively and specifically affecting Alaska's king salmon production.

In an Oct. 24 article the New York Times reported emissions from the damaged plant are such that oceanographer Michio Aoyama believes "radioactive cesium 137 may now be leaking into the Pacific at a rate of about 30 billion becquerels per day, or about three times as high as last year. He estimates that strontium 90 may be entering the Pacific at a similar rate. … Scientists suspect that the new releases are having measurable effects beyond the harbor."

The final word

Understanding the complex migration and fishery interactions of Chinook stocks is foundational to unraveling causes of the production decline. Researchers stress the importance of knowing when and where king stocks are swimming in Alaska's salt water is paramount.

"Stock-specific chinook salmon distributions need to be mapped for all three life history phases," Orsi said. "We need to know the "early marine migration of juveniles (in) their first ocean winter, (the) seasonal ocean-rearing localities of immatures and (the) return migrations of maturing adults."

Next week: The conclusion of our series.

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