

11/17/12

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FM: Harlan P Bailey SO4T60780 I SO4T60837 Z

1061 Palm Ave, Martinez CA, 94556

ATTN: BOF COMMENTS

Boards Support Section

Alaska Dept of Fish and Game

PO Box 115526

Juneau, Alaska 99811-5526

RE: Proposals 15, 44 thru 54, and 62

15. OPPOSE: There is no requirement to obtain a lease on a setnet site in order to engage in legal operations. Once a fisher has established himself/herself on a site in a consistent manner, he/she has, for the duration of the fishing season, all of the rights that a lessee would have on a leased site. To ask a non lease operator to serially remove, replace their ground tackle is a burden on a class of people. This requirement may cause loss of harvest or fishing time between short openings because of the time required to do this extra work or because of lack of access due to tidal action. This proposal would put some operators needlessly at risk for violations.

44 thru 54. SUPPORT: I and my two adult children hold and operate two setnet permits on two leased net lines. We all have other jobs and careers when we are not fishing. This is a necessity in any economy. We consider our Alaska operation to be the same as a small family farm. Our intention is that one or two of us will always be holding and operating these two sites and permits. Two permits have given us the ability to use double gear in times of poor harvest and to have two market limits during times when processing capacity is limited due to big harvests in multiple districts. We believe that the two permits have enabled us to stay in business during the paradigm shifts, good times, bad times, which come to all fisheries.

I would like to add that I have been involved in this fishery for 42 years. I own a house and storage facility in Naknek. We make a point of buying our goods, services, and equipment in the Naknek, King Salmon area.

62. SUPPORT: A wholesale restructuring of our fishery was rejected; however, there is the capacity to propose restructuring adjustments to the present limited entry system which may be beneficial. I believe that Bristol Bay salmon limited entry permits function in the same way, socially and economically, as small family farms. Any restructuring should be rigorous and should not be easily or quickly done. I am in full support of codifying a careful and rigorous procedure as these types of changes can have far reaching economic, social, and biological effects. I look forward to reports, testimony, and deliberation on this proposal, and because this subject is complicated and may be subject to unintended consequences, I expect the process will be long and thoughtful.

56. OPPOSE: This has been a fair system which works for the user groups.

I thank you all, Board and Support Section, for your hard work and diligence, and I look forward to seeing you in action.

Harlan Bailey

Martina Bailey

Nigel Bailey

RECEIVED

NOV 19 2012

BOARDS  
ANCHORAGE

## Comments on the Bristol Bay Finfish Proposals

Proposals 44-54 concerning ownership of two set permits.

As a setnet fisherman who has been fishing as a way of life since 1969, I support dual permit ownership. I have 4 years in Cook Inlet, 4 years on the Yukon Delta and 35 years in the Bay. I have seen good years and bad more than once.

I believe the ownership of 2 permits allows for a solid, viable fishery. The cost of entry into the fishery changes little or not at all---- one is not required to purchase 2 permits. What other enterprise can one go into-- part-time-- where one has the opportunity to gross the investment in a couple of seasons? Try buying a liquor license.....or open a restaurant.

Supplemental proposal allowing for dual drift permit ownership:

This is a well-thought out articulate proposal. I am in favor of it as written. It allows the drift fleet the same opportunity as the setnets have. It means less gear in the water, which has been something that the Board has been striving to accomplish for years. A win win situation for everyone.

Thank you, John Schandelmeier

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NOV 19 2012

BOARDS

Dear Gentlemen,

In Reference to Proposal 239-SAAC 67.022(6)(6)

Support As Amended

Support - "Single Hook"

Oppose "NO BAIT"

I work on - The NUSHAGAK DURING The Summer  
As a cook - Guest come from all over +  
Pay Good Money in a BAD economy to FISH.

We do NOT to give them more reason to  
spend monies elsewhere -

Single Hook - WORKS GREAT - Very Very Few  
KINGS Die - In 2 yrs I have seen none  
Dying / Floating Down the the River etc -

BAIT - on slow days - which we all have  
we need all the help to keep customers  
encourage to fish on those cold rainy days -  
EVERYTHING HELPS US on these days -

THANK YOU

DANIO LABORDE

P.S.

Thanks for such a wonderful state  
I get to enjoy -

Chris Poulsen  
PO Box 236  
Togiak AK, 99678

ATTN: BOF COMMENTS  
Bord Support Section  
Alaska Department of Fish and Game  
PO Box 115526  
Juenau AK, 99811-5526

RECEIVED  
NOV 19 2012  
BOARDS

To the members of the Alaska Board of Fisheries:

I have fished Bristol Bay most my life. I live in Togiak and have made a living fishing Salmon, Halibut and Herring. I am a third generation fisherman and have passed on my knowledge to many young fisherman. Please consider my comments on these proposed changes to the regulations.

PROPOSAL 10 5 AAC 27.865(b)(7) Bristol Bay Herring Management Plan

**I do not agree with this proposal:**

I think the regulation should be left as it is. There should be more effort to redevelop the spawn on kelp fishery so the local participants can have the economic benefit of this resource. Even though it has been years since a commercial harvest has occurred there is a active subsistence fishery that continues well into June. Also there is harvest in the region for food and bait for the local halibut fishery into late June.

PROPOSAL 11 AAC 27.865(b)(8) Bristol Bay Herring Management Plan

**I do agree with this proposal:**

This proposal addresses a problem we encounter in the management of the Togiak Herring fishery, And would give the managers the incentive to open more of the district to gill-netters. In the early days when the fish first arrive to the district it would be a benefit to be allowed more area to find and harvest good quality fish. When I started fishing herring we fished more of the district and sold quality fish from the Togiak subsection as the herring entered the fishing district. We have not been allowed to fish in the Togiak section for many years.

PROPOSAL 12 AAC 27.865 Bristol Bay Herring Management Plan

**I do agree with this proposal:**

PROPOSAL 13 AAC 27.865 Bristol Bay Herring Management Plan

PROPOSAL 14 AAC 27.850 Closed Waters in Bristol Bay Area

**I do not agree with these proposals:**

There is no need to close the fishing season or area for the purpose of gathering spawn on kelp. Many factors affect the quality of spawn on kelp. The weather is a main factor. South blowing storms that are common and batter the kelp beds making it low quality. Tide timing after the spawn. The tide may not expose the kelp for harvesting. Observation of the kelp grounds can be difficult. With so few fishing Herring its hard to document where heavy spawn has occurred to direct the kelping effort. I understand the difficulty in finding good kelp but I don't agree that these proposals will achieve the result they intend. The fact that gas price is near 7 dollars a gallon makes looking for spawn on kelp expensive and prohibitive for some. With a cooperative effort from ADF&G, fish spotters and processor transports sharing observations of heavy spawn with harvesters that could achieve the desired result.

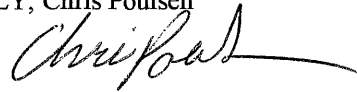
PROPOSALS 44-54 -5 AAC06.331. Gillnet specifications and operations. Repeal sunset clause for dual set gillnet permits for single permit holder.

**I do agree with these proposals .**

I have been set netting Togiak for 25 seasons. If the sunset clause is not removed I will not be able to make a living set netting. The ability for one person to hold and fish two permits achieves many of the goals of consolidation ,local involvement ,quality and profitability. Many set net operations are mutable permit family businesses. As the demographics of our fisheries age, permit stacking gives family operations the stability they need to stay profitable. Children can build there own successful business at the same time the aging parents are not forced into poverty. According to the CFEC report on average set net earnings (09-1N February 2009) in 2007 residents earned around 23,000 dollars. Not what I would call profitable. Consolidation improves earnings allowing investment in quality improvement. Local water shed ownership is increased because there is a greater chance to make a living.

The local crew have a chance to earn more. New entrants into the fishery have the opportunity to build a stronger more divers and profitable business. If the sunset clause is not rescinded the negative effects will be immediate on all set netters. Permit values will plummet and already strong operations will be put at risk. Crew will loose opportunity and local families will suffer. Set net sites that have been fished for decades will be lost . The points made in these proposals are valid .

RESPECTFULLY, Chris Poulsen



ATTN: BOF COMMENTS  
Boards Support Section  
Alaska Department of Fish and Game  
PO Box 115526  
Juneau, AK 99811-5526

**PROPOSAL 7 – 5 AAC 67.022 Reduce king salmon bag limit between Constantine and Newenham. I oppose the proposal as written.**

As currently proposed the smallest user group is being asked to bear all the burden by reducing their fishing to improve the escapement (sport fishing). In round numbers the commercial fishery consumes 10,000 Kings; the escapement is approximately 10,000 Kings; the subsistence fishery consumes approx. 1000 Kings; and the sport fishery consumes 1000 Kings. That is a total return before any harvesting of 22,000 Kings. The 1000 Kings harvested by the sport fishing is less than 5% of the total run. This proposal would cut in half the number of Kings over 28" you are allowed to retain daily. If you are serious about improving the escapement of Kings on the Togiak the Board should look at the whole pie and not just the smallest piece of the pie.

I am not opposed to reductions in harvest as long as we take a comprehensive look at the entire fishery and don't just single out the sport fishery. I am well aware of the problems with the King salmon runs on the Kenai river, the Cook Inlet streams and the Nushagak river. Those areas have much more pressure from commercial and sport fishing than we have on the Togiak. There are only two permanent outfitters on the Togiak who are selling sport fishing trips and two canneries processing Kings. I have worked closely with US Fish and Wildlife the last 4 years as they have done studies on where the Kings are spawning throughout the entire Togiak System. Although the runs are not as great as they were 10 years ago the Togiak has a healthy run of King salmon.

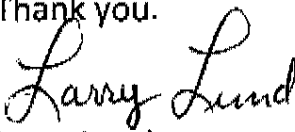
To reduce the harvest of King salmon on the Togiak river so that Bristol Bay would have consistent bag limits is penalizing the Togiak because of problems that have occurred on the Nushagak.

**PROPOSAL 8 – 5 aac 67.022 Reduce king salmon limit in the Togiak and Kulukak rivers. I oppose the proposal as written with respect to the Togiak River. I do not know anything about the Kulukak river.**

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Thank you.



Larry Lund

Owner

Togiak River Lodge



**ATTN Boards Support**  
**Bristol Bay Board of Fisheries Comments**  
**PO Box 115526**  
**Juneau, AK 99811-5526**  
**Fax 907-465-6094**

**November 19, 2012**

**Members of the Board-**

My name is Bronson Brito and I am writing to represent my opinions as well as those of my wife and daughter's regarding our interests in the Bristol Bay Salmon Fishery. I am a fourth generation Bristol Bay drift fisherman, I make my home year round in Dillingham, AK and have been the Captain of a small aluminum drift boat, the F/V Sea Breeze, for 8 salmon seasons.

I began fishing on my Father's boat as a child and took over my own boat at age 17. I Captain the F/V Sea Breeze to fish the sockeye salmon run and have extended my season fishing the last two Pink seasons with my brother Angelo Brito joining me as a dual permit holder. We are a small operation working winter jobs in addition to fishing in the summertime. Fishing is a passion for my family; my wife and I hang our own nets, I do my own boat work including engine repair and vessel modification. I employ two crew members on a yearly basis and contribute to the local economy with every purchase. I look forward to the Salmon run all year. We are not a high lining operation but we do live off of the income fishing generates for us; it is what allows us to continue to live in Rural Alaska. It is not only our source of income but an entirely consuming course of life every summer. Please take our family's comments into consideration when making your decisions at the Bristol Bay Board of Fisheries this year.

**Proposal's 24, 25 – Allow seine nets in Bristol Bay, Create a salmon troll fishery in Bristol Bay. **Oppose****

We are adamantly opposed to allowing new gear in the Bay, the implications this could have for the existing fishermen could be devastating. Allowing seiners would create the need for an all new allocation plan, separate openings, different vessels allowances and potential enforcement nightmares. Seiners also occupy more space in the water with their gear and would create more conflicts among user groups. The practice of trolling as a whole we do not agree with and absolutely do not want it in the Bay. We have enough interception and by catch concerns as it stands without adding another method of harvest.

**Proposal's 32 – 35 – 32 ft vessel length increase – **Oppose****

We care about keeping this fishery active for locals who depend on the run for their livelihoods. We are the members of a fourth generation family of fishermen who live year round in Dillingham. For generations we have effectively made our livings from fishing out of 32ft drift boats that are **not** these monster 32 ft by 18 ft vessels. Our family's boat is a 32 ft aluminum hull stern picker with an 11 ft gunnel to gunnel deck space. In this size boat we are able to effectively run a 7 ½ ton RSW system (that is over 15 yrs old)chilling 7,000 lbs with extra bin capacity open and able to slush ice fish if necessary during the

F/V Sea Breeze: Captain Bronson A. Brito & Family

peak of the run. Our system allows for quadrants in the bins so if our catch is small or large we can adjust flow to chill all or just some of the bins. To say producing quality catch is impossible with the vessel restrictions is just not true. Yes, you have to use ingenuities to make systems like this work, and yes, longer boats would add more space for chilling equipment, extra deck space and processing capabilities **but it would alienate the core of our local fleet** and would devastate the fishery for most everyone who makes their living at it each season. We plan to fish as family as long as it is sustainable; we look forward to the run every year. If an increase to vessel size were allowed, we would no longer be able to compete. It is absurd to suggest adding four feet onto the back of the existing boats in Bristol Bay would be economical. When you add on a modification such as this it's not merely taking on four feet of aluminum or fiberglass; it's an entire hull modification in order to maintain maneuverability, this would lead to entire deck modifications, keel, steering, rudder control and ballast of the vessel.

We want to raise our children here in Bristol Bay and pass on our assets to them but in order to do this we have to be able to make a living at fishing. Fishing is always a gamble but at least with this limit in place the playing field is level.

**Proposal's 36, 37, 38** Dual Drift permits to be owned and operated in one person's name – **Oppose**

We as a family are in support of the dual system as written. If this were to be enacted it would be too easy for available permits to be bought and fished by very few. It is a limited entry fishery, which is a good thing, duals do get more gear out of the water by allowing for fewer boats to catch more fish; but in the system we have now, more than one person has the potential of benefitting from the permits. Allowing for one person to operate two permits in their name would make getting into the fishery an impossible feat.

**Proposal's 41, 42** Disallow permit stacking for Drift boats in Bristol Bay – **Oppose**

We currently utilize the dual as it was intended, and would like to maintain this option in the future. When the run diminishes at the end of the season and it no longer becomes economical to pay crew, we have condensed our families' fleet down. The typical situation is having two permit holders who previously fished their own boats to join and fish from one boat as a dual operation. This cuts costs, is effective and safe when catch is low. Fuel costs are high and when the run is on the tail end or we are fall fishing for Pinks or Coho, the only way it makes sense is for us to fish together, split expenses, while utilizing both permits.

The other reason we currently support the Dual system is that we want our children to be able to enter in the fishery and when permits are affordable we would like to buy one for our daughter, but the only way for this to work is if we can teach her to fish it while being able to make the payment.

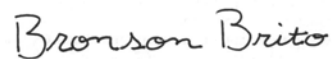
The dual also allows for someone who currently owns a permit to be able to fish even if they cannot afford a full complement of gear, it benefits the captain of the vessel utilizing the permit and the owner of the permit. We understand that many have been "leasing" emergency medical transfers in

order to pad their boats with gear; but this does not impact us enough to make us want the system eliminated.

**Proposal's 58-61 – Create a general district – Oppose**

We will always be opposed to a General District in any concept! This would create enforcement issues, potentially allow for fishery interception of salmon headed to the Yukon/Kuskokwim and the Togiak District and would be impossible for managers of Bristol Bay river systems to effectively manage their salmon stocks.

Thank you for your time and consideration,

A handwritten signature in cursive script that reads "Bronson Brito".

Bronson A. Brito

Captain F/V Sea Breeze

Dillingham, AK

ADF&G # 36377

F/V Sea Breeze: Captain Bronson A. Brito & Family

BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals to 36, 37, 38, 39 and 40 for Permit Stacking**

**A. Other Alternatives For Profitable Fishing**

There are comparatively better alternatives to improving the financial bottom line for fishermen than giving an “additional opportunity” to dual permit holders. In 2002, United States Senator Ted Stevens said, “We have a price problem, and the price comes from competition overseas.”<sup>1</sup> The Bristol Bay Economic Development Corporation (BBEDC), and Bristol Bay Regional Seafood Development Association (BBRSDA)<sup>2</sup> are focusing on quality and increasing the price for fishermen.

Substantial progress is being made in the fishery in these areas. Ice barges, ice machines, and other equipment exist where they did not before. The vigorous, focused effort has been making a difference. From 2002 to 2011, average gross earnings for Bristol Bay drift netters and set netters increased dramatically: driftnetters, \$21,480 (2002) to \$70,236 (2011), and b) settnetters, \$11,167 (2002) to \$31,210 (2011).<sup>3</sup> Permit prices show a similar upward movement: a) driftnetters, \$19,700 (2002) to \$143,900 (2011), and b) \$11,900 (2002) to \$35,900 (2011).<sup>4</sup> In 2012, fishermen received an estimated \$1.15/lb. for chilled sockeye.<sup>5</sup>

These efforts are positive for all fishermen and lift all boats. They avoid negativity and arguments among fishermen.

**B. Permit Stacking**

**1. Eliminate Present Permit Stacking.**

I ask that the Board eliminate the present permit stacking in which two permit holders can

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<sup>1</sup> Anchorage Daily News, February 24, 2002, E-1, “Salmon Solution.”

<sup>2</sup> [www.bbrsda.com](http://www.bbrsda.com), Projects and Strategies, Improving Quality and Value.

<sup>3</sup> Commercial Fisheries Entry Commission website, Fishery Statistics, Fishery Participation and Earnings, SO3T and SO4T Salmon, Drift Gillnet, Bristol Bay. Non-resident fishermen’s gross earnings were even higher.

<sup>4</sup> Commercial Fisheries Entry Commission website, Permit Value Report (SO3T and SO4T), [http://www.cfec.state.ak.us/pmtvalue/X\\_S03T.HTM](http://www.cfec.state.ak.us/pmtvalue/X_S03T.HTM), and [http://www.cfec.state.ak.us/pmtvalue/X\\_S04T.HTM](http://www.cfec.state.ak.us/pmtvalue/X_S04T.HTM). Drift Permit value decreased to estimated \$96,700 in October 2012, but set net permit value continued to increase to estimated \$42,200 in October 2012.

<sup>5</sup> Base price: <http://www.adfg.alaska.gov/static/home/news/pdfs/newsreleases/cf/226013052.pdf>, at pages 1-2, and chilling bonus: my own chilling bonus.

fish 200 fathom of gear. It creates two classes of fishermen. Further, it allows those with 200 fathom to cork those with 150 fathoms, creating an unfair advantage for those with 200 fathoms. It is more difficult fishing against someone with a longer net. Also, when processors impose limits, those with 200 fathoms are allowed higher limits. When processors give price adjustments, those with 200 fathoms appear to be the producers and obtain the price adjustments while those with 150 fathom may have been better fishermen in terms of quality and fish caught/fathom fished but do not get the adjustment.

## **2. If Don't Eliminate Present Permit Stacking, Retain Current Permit Stacking Without Modification.**

If the Board is going to allow permit stacking, I ask that it retain the present permit stacking without modification. The intent of the present permit stacking was to allow a fisherman with insufficient capital to join with another fisherman to fish for their mutual benefit. The Board should limit this means of permit stacking to this original intent.

## **3. Do Not Expand Permit Stacking.**

The Board should not expand permit stacking to allow one fisherman to own and fish more than one permit. This creates two classes of fishermen. It favors the "well-to-do" over the less affluent. It will have a disparate impact on watershed residents who have fewer job opportunities than those who live in urban areas. I ask that the Board give substantial weight to the goal of AS 16.43.290(3) by considering:

the number of entry permits sufficient to avoid serious economic hardship to those currently engaged in the fishery, considering other economic opportunities reasonably available to them.

*Id.*

Additionally, every fisherman historically has fished the same length of net (150 fathoms) in the drift fishery. Allowing one fisherman to fish more net than another fisherman allocates fish among drift fishermen. Obviously, the fisherman with more net will almost certainly catch more fish than one with less net. The Board will be dividing fish within a group that has historically fished on equal footing in terms of net. Fishermen entered the fishery with the understanding that everybody fished the same length net.

A huge flaw with the proposals is that the real determining factor is how "rich" you are. Most fishermen I know cannot afford to buy a second permit.<sup>6</sup> Only the wealthy can actually afford a second permit unless someone inherits one. The proposals do not consider time fished, investment made, a reasonable average rate of return to the fishermen participating in the fishery, serious economic hardship to those engaged in the fishery, and other economic opportunities reasonably available to those fishermen engaged in the fishery. See AS 16.43.290.

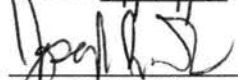
As stated above, in 2011, the average gross earnings for driftnetters was \$70,236. We

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<sup>6</sup> Commercial Fisheries Entry Commission website, Permit Value Report (SO3T).

have other alternatives that are much better than permit stacking to increase the financial bottom line for fishermen. BBEDC, a watershed Corporation, deserves credit for its substantial financial effort and contribution in raising the tide for all boats.

Dated: 11/19/12



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Joseph R. Faith

PO Box 1316

Dillingham, AK 99576

Bristol Bay Drift (S03T) Permit Holder

*F/V Margo*

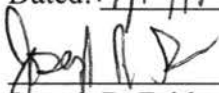
BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals to 58, 59, 60, and 61 for a General District**

I oppose the proposals for the creation of a general district. These proposals amount to interception of fish headed to a terminal fishery. The proposals for a general district after July 17 or after August 1 could easily result in the interception of silvers and reds headed for other districts such as the Nushagak and Togiak districts. Interception obviously can have serious consequences on escapement in terminal rivers, as well the well being of subsistence, sport, and commercial fisheries in the terminal rivers.

Dated: 11/19/12



\_\_\_\_\_  
Joseph R. Faith  
PO Box 1316  
Dillingham, AK 99576  
Bristol Bay Drift (S03T) Permit Holder  
*F/V Margo*

BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals to 63, 64, and 65 for Bristol Bay Allocation Plan**

I oppose the allocation plans of the above proposals. They are actually reallocation plans to benefit one group at the expense of another group. I can't afford to give up income that helps feed my family. The present allocation plans are based on historical catches in the various fishing districts.

Dated: 11/19/12

  
\_\_\_\_\_  
Joseph R. Faith

PO Box 1316

Dillingham, AK 99576

Bristol Bay Drift (S03T) Permit Holder

*F/V Margo*



BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals 32, 33, 34, 35, and 36 to Eliminate 32-Foot Vessel Rule**

**1. 32-Footer Very Effective**

The Board should make rules for the general situation, not the exception. 32-foot boats adequately handle every fishing period for almost every fisherman every year. 32-footers are more boat than is needed for the amount of fish caught almost always. One period, maybe two, a year a few fishermen could use a bigger boat when they catch a boatload. But the Board should not change the policy to accommodate such a limited circumstance. The rest of the year, these fishermen, as well as all other fishermen, have extra space on a 32-footer.

**2. Proposal Promotes Race For Bigger Boats And Overcapitalization**

Allowing bigger boats into the fishery will cause overcapitalization of the fishery. Practically everything that has to be replaced or repaired on a bigger boat will cost more (i.e. engine replacement, shafts, props, RSW, etc.). Bigger boats will result in more expenses and waste of resources. We should not be figuring out ways to increase expenses for fishing operations. We should be figuring out ways to increase profits, so fishermen have more take-home pay.

Allowing bigger boats would likely set off a race to own bigger boats. To keep up, fishermen will necessarily pay substantial amounts for bigger boats and create more debt, causing more economic distress to the fishery.

On a related subject bigger boats will likely set the wheels in motion for future Board meetings at which the Board will be asked to reduce the number of permits to another optimum level. Bigger boats will have higher expenses. To justify the higher expenses, those fishermen will want more fish to pay those expenses and will want to get those fish from other fishermen.

**3. Proposal Promotes Race for Fish**

With bigger boats, fishermen will want to fill their boats with fish. There won't be enough fish to fill the capacity of the bigger boats. The present fleet of 32-footers can already catch more than 100% of the run. The race for fish will be on. There will be increased competition on the fishing grounds. There will be increased demands on Fish and Game from frustrated fishermen who aren't catching enough fish during the season. As mentioned above, there will more Board of Fish meetings to figure out how to accommodate the increased capacity of the fishing fleet.

#### **4. Quality Can Already Be Achieved With 32-Footers**

Quality can already be achieved with 32-foot boats. The quality problem is not due to the length of a 32-footer. The quality problem for drift netters is due to long sets, round hauling, improper fish handling, compressing fish, holding fish too long, not cooling fish, fish pumps on tenders, and canning fish.

Increasingly more 32-foot boats have RSW and slush systems and achieve quality with both systems. The obstacle to an RSW system has little to do with the capacity of a 32-footer, but rather everything to do with the cost of installation and maintenance. Show an RSW company the money, and the RSW company will show anybody a unit that will work on any 32-footer.

The processor also help obtain quality by requiring delivery every 8 hours. Similarly, Fish and Game assists quality with shorter fishing periods (i.e. 4 hours) that result in fish being delivered to the processor.

Moreover, quality could easily be reduced with bigger boats because it will increase the likelihood that bigger boats will hold the fish on their boats longer than 32-footers do now. Some of the larger boats already hold their fish for 24 hours, as compared to only 4 to 8 hours for most of the boats in the fishery.

#### **5. Quality Is Being Addressed By Private Industry and Fishermen**

Quality is being addressed by the Bristol Bay Economic Development Corporation, Bristol Bay Regional Seafood Development Association, processors, and fishermen.

In recent years, substantial progress has been made with respect to quality:

- an ice barge in the Nushagak district;
- an ice barge in the Naknek/Kvichak district;
- an ice barge in the Egegik district;
- an ice machine at the processing plant in Ekuk;
- an ice machine at the boat harbor in Dillingham.
- an ice machine on a private tender tendering for Icicle on the Nushagak;
- an ice machine at the Togiak Fisheries plant in the Togiak district.
- an ice machine used by Cooper River Seafoods in the Togiak district.

Market prices are doing an effective job of pushing every fisherman to focus on quality. In 2012, fishermen received an estimated \$1.15/lb. for chilled sockeyes (\$1.00 base price plus .15 for chilling bonus.<sup>1</sup>)

#### **6. Quality Depends On Individual Fishermen, Not Bigger Boats**

As stated above, quality is a function of many factors such as long sets, handling fish properly, compressing fish in the holds, chilling, and so forth. A bigger boat does not mean that any of these factors will be addressed. It still comes down to how these

---

<sup>1</sup> Base price: <http://www.adfg.alaska.gov/static/home/news/pdfs/newsreleases/cf/226013052.pdf>, at pages 1-2, and chilling bonus: my own chilling bonus.

factors are addressed by individual fishermen.

**7. Claim that Fishermen Will Use Bigger Boat For Processing Is Speculation**

There is also a claim that bigger boats will allow for more on-board processing. How many fishermen is this? Without actual numbers, the Board will simply be speculating and could be making a decision based on something that won't happen much, if at all. Further, nothing is stopping anybody from bringing in a bigger boat now and processing off it. That's what processors do. The opportunity to process off a bigger boat already exists.

**8. Infrastructure Changes in Bay Communities Will Require Time and Money**

Bigger boats will require changes for boat hauling, harboring, and storage in Bay communities. Boat haulers will need bigger trailers. Boat storage spaces will have to be enlarged. Boat harbors will have to create special areas for bigger boats, and likely are too small now to accommodate a lot of bigger boats and likely will require expensive expansion projects.

Dated: 11/19/12

  
\_\_\_\_\_  
Joseph R. Faith

PO Box 1316

Dillingham, AK 99576

Bristol Bay Drift (S03T) Permit Holder

*F/V Margo*

BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals to 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, and 54 for Repeal of Sunset Clause for Set Net Permit Stacking**

**1. Permit Stacking Will Benefit the “Well to Do” At the Expense of the Poorer Fisherman With a Smaller Operation, and Local Watershed Communities**

Permit stacking will favor the “well to do” over the less affluent. Most fishermen I know cannot afford to buy a second permit.<sup>1</sup> According to the CFEC, “since January of 2010, when permit stacking was allowed, the fair market value of set gillnet permits rose 64.2% from \$25,700 to \$42,200.”<sup>2</sup> New entrants into the set net fishery “went to a historic low of 6% in 2011.”<sup>3</sup> Permit stacking has largely benefited non-residents and nonlocals, not local watershed residents. “Starting in 2010, when permit stacking regulations came into effect, the count of individuals who held two permits at year-end rose substantially, especially among nonresidents and nonlocals.”<sup>4</sup> In 2012, ninety-two non-residents and nonlocals stacked permits, while only thirteen locals stacked them.<sup>5</sup>

The acquisition of dual permits will not be based on dependence on the fishery of fishermen and local communities, or other alternative jobs one has in his region (AS 16.43.290(3)), but on the wealth of the purchaser of the second permit. Permit stacking is more realistically a device to allocate the resource away from the small and poorer fishermen, thereby creating serious economic impacts on local communities.

**2. Permit Stacking By A Single Person Will Create Two Classes of Setnetters: Dual Permit Owners, and Single Permit Owners.**

Permit stacking by a single person will create two classes of setnetters: dual permit owners, and single permit owners. Notwithstanding AS 16.05.251, which allows “additional fishing opportunity,” a fisherman with dual permits will be granted an allocation of fish over a fisherman with a single permit, greatly changing the traditional fish allocation amongst fishermen within a single fishery. According to the CFEC, “[e]ach of the single permit operations effectively landed fewer fish as stacked operations increased their share of the landings.”<sup>6</sup>

A fisherman with dual permit owners will receive an allocation of fish not received by a

<sup>1</sup> Commercial Fisheries Entry Commission website, Permit Value Report (SO4T).

<sup>2</sup> CFEC Report No. 12-02-N, Bristol Bay Set Gillnet Permit Stacking, at page 15, November 2012.

<sup>3</sup> *Id.*, at page 13.

<sup>4</sup> *Id.*, at page 5.

<sup>5</sup> *Id.*, Table 1, at page 5.

<sup>6</sup> *Id.*, at page 12.

fisherman with a single permit by virtue of being able to put more net in the water and assuredly catch more fish. Dual permit owners will also be able to cycle two fifty fathom nets to double the catch they traditionally would have caught with only one net, depriving other set netters fish they would have traditionally caught.

Processors will almost certainly favor dual permit owners over single permit owners by giving dual permit owners higher limits on limit days, and giving them production bonuses for delivering more poundage when a single net owner may have, in fact, delivered higher quality fish.

Dual permit owners, under current regulation, will be able to split their two nets, giving them opportunities to fish on one—two—three—or four site(s), as compared to two at most for the single permit owner. It seems that enforcement will have an almost impossible task of enforcing laws, with a set net permit holder having the ability to fish a combination of nets, including cycling those nets, on multiple sites, miles apart.

Permit stacking will also creates an environment for a hostile takeover mentality of the single permit holders by squeezing them out of the fishery through the many advantages the dual permit owner will receive over the single permit owner.

### **3. Permit Stacking Has The Potential To Unconstitutionally Impinge on the Common Use And No Exclusive Fisheries Clauses of the Alaska Constitution**

Permit stacking has the potential of impinging too much on the common use and no exclusive fisheries clauses of Alaska's constitution. Permit stacking could cut the number of set net fishermen in half from the traditional number of 993 fishermen to 497 fishermen<sup>7</sup> and become too exclusive.

Dated: 11/19/12

  
\_\_\_\_\_  
Joseph R. Faith

PO Box 1316

Dillingham, AK 99576

Bristol Bay Drift (S03T) Permit Holder

*F/V Margo*

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<sup>7</sup> *Id.*, Table 1, at page 5 (993 SO4T permits in 2003).

Attn: Bristol Bay BOF Comments  
Board Support Section  
Alaska Department of Fish and Game  
Po Box 115526  
Juneau, Ak 99811-5526  
Fax: 907-465-6094

Proposal 239- 5AAC 67.022(g) (6)  
Special Provisions for Seasons, Bag, Possession, Size Limits, Methods,  
and Means in the Bristol Bay Area.

Sirs:

My name is Bob Toman, I have operated a sport fishing camp (Tomans King Camp) on the lower Nushagak since 1990. Our camp is located about 4 miles downstream from Portage Creek. I have been a guide in Oregon for 44 years.

I oppose Proposal 239 making it mandatory to fish with a single barbless hook for Chinook Salmon in waters of the Nushagak River...  
I do agree to allow bait.

The Department already has all the tools to manage the fishery in the Nushagak-Mulchatna Chinook Management Plan...  
Which includes bag and possession limits, reduce the seasonal bag limit, prohibit the use of bait, and close the fishery to fishing for Chinook Salmon..

Over the years I have participated in many studies with the Oregon Department of Fish and Wildlife. The largest and most important is the Hook and Release Mortality Study on Spring Chinook Salmon that was conducted from 2000 until 2004. I participated in catching them and am one of the authors of this study..This study is published in the North American Journal of Fisheries Management Vol. 24, No. 2, May 2004 and copyrighted by the American Fisheries Society 2004...The resulting numbers from this study have allowed for the Spring Chinook Fishery to be resumed on the Columbia River for the first time since the 1960's...

I have included the published study for you to read....

Some points:

Spring Chinooks are mostly angled for during April and May and they spawn in October and November . Caught and released ones have to summer over during the warm water months of the year, which increases their mortality, over say a shorter in river stay before spawning (like the Nushagak Chinooks).

If they are hooked in the jaw there is a 2.3% mortality.

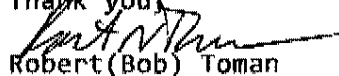
Style and size of hook (treble or single), type of lure, or use of bait doesn't seem to matter as long as they are hooked in the jaw.

Since, I first saw the results of the study I have modified my angling methods to maximize hooking the fish in the jaw. In our camp our guides are instructed to fish in a manner that hooks the fish in the jaw. (Most camps on the Nushagak do also)...It's easy to adjust angling methods to achieve this and I would prefer to have rules that required hooking in the jaw over a blanket single barbless hook rule. Although, it seems a single barbless hook is best it isn't under all circumstances..On some lures the single hook gets too far in the mouth

and hooks the fish in the gill arches..Sometimes its better to use one single hook....Sometimes it is better to use treble hooks . Sometimes it is better to use two single hooks.... I would prefer to have that option. In our camp the occasional "bleeder" is a kept fish and tagged by the client...

Using a single barbless hook appears to make sense, but without any science backing up single hooks and mortality, under all salmon fishing methods, it just becomes another needless rule that makes somebody feel good.

Thank you,

  
Robert (Bob) Toman

## Hooking Mortality by Anatomical Location and Its Use in Estimating Mortality of Spring Chinook Salmon Caught and Released in a River Sport Fishery

ROBERT B. LINDSAY,<sup>1</sup> R. KIRK SCHROEDER,\* AND KENNETH R. KENASTON

*Oregon Department of Fish and Wildlife, 28655 Highway 34,  
 Corvallis, Oregon 97333, USA*

ROBERT N. TOMAN

*Toman's Guide Service LLC, 1872 South East Semple Road,  
 Clackamas, Oregon 97015, USA*

MARY A. BUCKMAN

*Oregon Department of Fish and Wildlife, 28655 Highway 34,  
 Corvallis, Oregon 97333, USA*

**Abstract.**—We estimated the hooking mortality of spring Chinook salmon *Oncorhynchus tshawytscha* that were caught and released to determine whether selective fishing on hatchery Chinook salmon would reduce harvest mortality of wild fish in a sport fishery in the lower Willamette River, Oregon. Hooking mortality in the fishery was estimated from hooking mortality rates for each of five anatomical locations (jaw, 2.3%; tongue, 17.8%; eye, 0.0%; gills, 81.6%; and esophagus–stomach, 67.3%) and from the frequency of these anatomical locations in the sport fishery (jaw, 81.5%; tongue, 5.1%; eye, 0.4%; gills, 5.1%; and esophagus–stomach, 7.8%). Mortality rates by anatomical location were estimated from recaptures of 869 tagged fish that were experimentally angled and of 825 tagged controls that were trapped in a nearby fishway. Anatomical hook locations in the lower Willamette River sport fishery were determined with creel surveys. We estimated hooking mortality rates of 12.2% for wild Chinook salmon caught and released in the sport fishery and 3.2% for the entire run of wild Chinook salmon based on a mean encounter rate of 26%. Hook location was the primary factor affecting recapture of hooked fish, but fish length, gear type, bleeding, and the elapsed time to unhook fish were also significant factors. A selective sport fishery in the lower Willamette River can be used to reduce harvest mortality on runs of wild Chinook salmon while maintaining fishing opportunity on hatchery Chinook salmon. The effect of selective fisheries for Chinook salmon in other rivers would depend on the frequency distribution of anatomical hook locations and on river-specific encounter rates.

Selective fisheries for anadromous salmonids are rapidly becoming a standard management tool to reduce harvest mortality of wild fish while maintaining angling opportunity. Regulating agencies often mandate selective fisheries to target abundant hatchery fish while reducing effects on wild fish. Anglers also voluntarily catch and release fish to select for an attribute, such as large size, where creel limits are low (Bendock and Alexandersdottir 1993). Selective fisheries are currently being used in Oregon to target hatchery Chinook salmon *Oncorhynchus tshawytscha*, coho salmon *O. kisutch*, and steelhead *O. mykiss*. Because many wild populations of these species in Oregon are in low abundance and are listed under

the Endangered Species Act, angling opportunity is being maintained by requiring anglers to release wild fish, but allowing them to keep marked hatchery fish—usually identified by an excised adipose fin. This strategy assumes that mortality from the catch and release of fish is low.

Few studies have been published on hooking mortality of anadromous Pacific salmon in selective sport fisheries in freshwater (Bendock and Alexandersdottir 1993). Studies of hooking mortality in hook-and-line salmon fisheries in saltwater are more common (Wertheimer 1988; Gjernes et al. 1993; Lawson and Sampson 1996; Grover et al. 2002) and have found that mortality is largely dependent on fishing technique and anatomical hook location. In general, hooking mortality in commercial troll fisheries is higher than that in saltwater sport fisheries (CTC 1997), except in ocean sport fisheries off California where a drift-mooching technique was used (Grover et al. 2002). Sev-

\* Corresponding author: schroedk@fsi.orst.edu

<sup>1</sup> Retired.

Received September 3, 2002; accepted May 23, 2003



eral studies have examined catch-and-release fishing for steelhead in freshwater (Pettit 1977; Hooton 1987) and for trout species (Mongillo 1984; Muoneke and Childress 1994). Most of these studies estimate hooking mortality over short periods and lack controls.

We began a study in 1998 to estimate the hooking mortality that would occur on wild spring Chinook salmon if they were caught and released in a selective sport fishery for hatchery salmon (marked with an adipose fin clip) in the Willamette River, Oregon. The study focused on the large, main-stem fishery below Willamette Falls at river kilometer (rkm) 43, which provided 171,000 angler-days and accounted for about 70% of the Willamette basin catch of spring Chinook salmon annually from 1981 to 1995 (calculated from Foster and Boatner 2002). Smaller fisheries occur in tributaries and in the main stem above the falls. Fisheries for spring Chinook salmon are supported by annual releases of about 5 million hatchery juveniles, which mitigate for dams that block access to or inundate natural production areas in the Willamette basin. Natural spawning still occurs in most large tributaries and in a few smaller ones that drain the Cascade Mountains. Subsequent to the initiation of our study, wild spring Chinook salmon in the Willamette River were listed as a threatened species under the Endangered Species Act (NMFS 1999), in part because of concern about excessive harvest.

#### Study Site

The Willamette River is the largest interior river in Oregon and flows north through the Willamette River valley, the most populated region in the state, entering the Columbia River near Portland, Oregon (Figure 1). The river drains a basin 31,080 km<sup>2</sup>, bounded on the west by the Coast Range and on the east by the Cascade Mountains. Annual flows in the Willamette River (measured at Salem, Oregon, 92 rkm above Willamette Falls) range from 200 m<sup>3</sup>/s in summer to 3,640 m<sup>3</sup>/s during floods. Flows ranged from 306 to 1,215 m<sup>3</sup>/s during our study in late April and May, but we could not sample at Willamette Falls when flows exceeded about 850 m<sup>3</sup>/s. Water temperatures ranged from 9°C to 18°C during our study, the highest temperatures occurring in 1998. Spring Chinook salmon spawn in September and October in most of the large, east-side tributaries to the Willamette River. All of the hatcheries in the Willamette River basin are located on these tributaries (Figure 1).

The Willamette River is divided into upper and

lower reaches by Willamette Falls. The height (12.5 m) and horseshoe shape of the falls concentrate adult Chinook salmon before they negotiate a fishway to continue their upstream migration. A counting chamber equipped with a video camera at the head of the fishway provides complete counts of fish runs above Willamette Falls. Most of our experimental fish migrated above the falls and were recaptured at hatcheries 212–290 rkm upstream. Others were recaptured above the falls in tributary fisheries, in traps operated at diversion dams on two large tributaries (114–296 rkm upstream of the falls), and on spawning grounds. A few were recaptured in the Clackamas River, a tributary that enters the Willamette River about 3 rkm below the falls. The creel survey of the sport fishery below the falls is divided into three sections: lower (rkm 0–10), middle (rkm 10–32) and upper (rkm 32–43; Figure 1). The lower survey section includes a heavily fished side channel (Multnomah Channel, 35 rkm long).

#### Methods

Our study was composed of two parts. First, we estimated hooking mortality rates of adult spring Chinook salmon caught and released in an experimental fishery at Willamette Falls for each of five hook locations: jaw, tongue, eye, gills, and esophagus–stomach. Hook location is a significant factor affecting hooking mortality of salmon that are caught and released (Wertheimer 1988; Wertheimer et al. 1989; Bendock and Alexandersdottir 1993; CTC 1997; Grover et al. 2002). Secondly, we surveyed the sport fishery in the lower Willamette River and estimated the frequency that harvested fish were hooked in each of the five hook locations. We applied these frequencies to the hooking mortality rates by hook location to calculate hooking mortality for fish caught and released in the sport fishery. The effect of catch-and-release fishing on the wild run was determined by multiplying the hooking mortality rate by the mean encounter rate of wild and hatchery fish in 1981–1995 in the lower Willamette River sport fishery. We assumed this encounter rate was applicable to wild fish in a selective fishery, although wild and hatchery fish could not be separated in 1981–1995 because most hatchery fish were not marked.

#### *Mortality in the Experimental Fishery*

*Tagging and recapture.*—The Willamette River offered a unique opportunity to estimate hooking mortality of spring Chinook salmon caught and released. Virtually all fish migrate through the fish-

## SALMON HOOKING MORTALITY BY ANATOMICAL SITE

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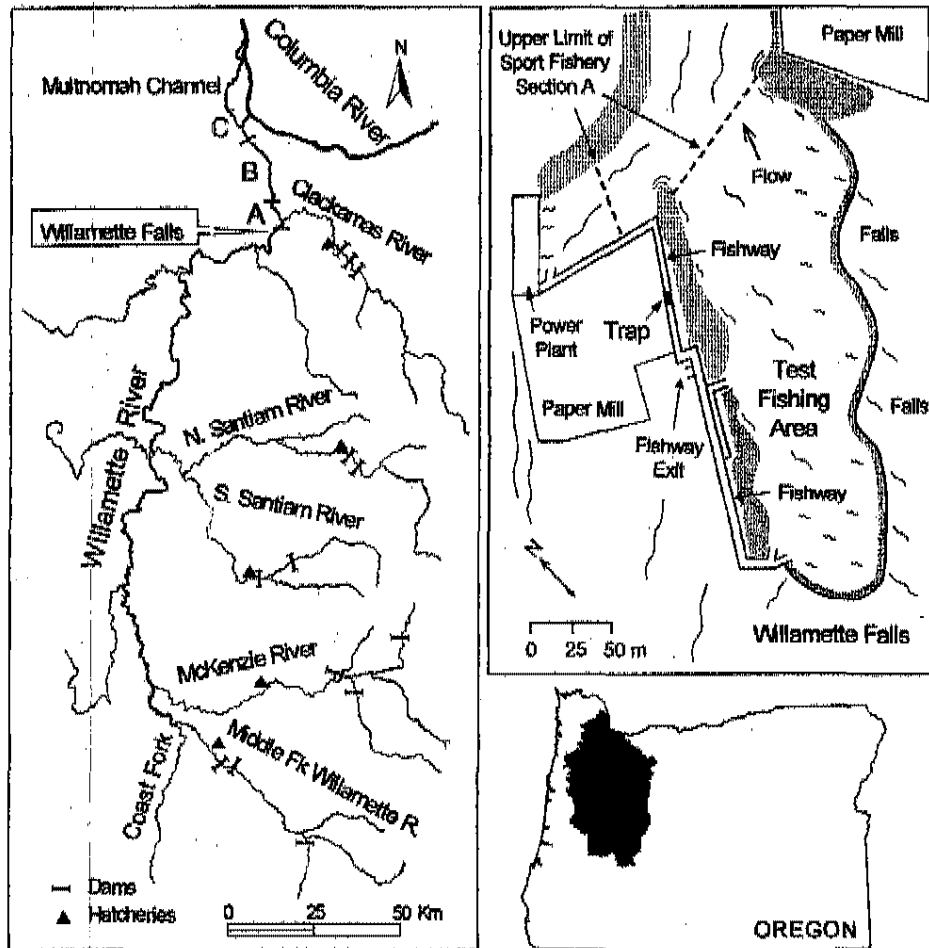


FIGURE 1.—Map of the Willamette River basin, Oregon, showing spring Chinook salmon hatcheries; Willamette Falls test fishing and trapping areas; and the upper (A), middle (B), and lower (C) creel survey sections of the lower Willamette River sport fishery.

way at Willamette Falls, and most enter upriver hatcheries weeks later. The concentration of Chinook salmon at the falls allowed us to tag a large number of fish that we caught with sportfishing gear. Concurrently, we captured and tagged a control group of salmon in the nearby fishway. We adjusted the recapture rate of tags from hooked groups by the recapture rate of tags from control groups to estimate hooking mortality by hook location. We tagged adult spring Chinook salmon at the falls from late April to late May during their upstream migration.

During the 3 years of the study we angled 869 Chinook salmon with a variety of terminal gear—prawn, salmon eggs, spinner, plug, wobbler—each including a variety of hooks (Table 1). We generally fished near the apex of the falls, an area closed to public boating and fishing (Figure 1). A

fishing guide provided the boat, sport fishing tackle, and the expertise for catching fish. Two members of the public fished on the boat each day. Two biologists on the boat handled the fish caught, recorded data, and fished when there was opportunity.

Fish were played and netted in a normal manner. Netted fish were lifted into the boat and placed into a 190-L tank partially filled with water. One biologist removed hooks with needle-nosed pliers and removed the fish from the net. We cut the line and left hooks in place when a fish was hooked on bait in the gills or in the esophagus–stomach, assuming that leaving hooks in place would cause less damage than removal (Muoneke and Childress 1994; Schill 1996; Schisler and Bergersen 1996). Most anglers would accept cutting off an inexpensive hook if it improved the chance that a re-

TABLE 1.—Numbers of spring Chinook salmon caught on various types of gear, tagged, and released in an experimental fishery at Willamette Falls, Oregon, to evaluate hooking mortality, 1998–2000.

| Terminal gear type | Hook type (all barbed) | Number of hooks | Hook size                                  | Number of fish caught |
|--------------------|------------------------|-----------------|--|-----------------------|
| Prawn <sup>a</sup> | Single                 | 1               | 4/0, 5/0                                   | 82                    |
|                    |                        | 2               | 4/0–4/0, 3/0–5/0                           | 110                   |
| Salmon eggs        | Single                 | 1               | 4/0, 5/0                                   | 203                   |
| Spinner            | Single                 | 1               | 3/0, 6/0                                   | 12                    |
|                    | Treble                 | 1               | 2, 1/0, 2/0                                | 140                   |
| Phyg               | Single                 | 1               | 2/0, 3/0                                   | 17                    |
|                    |                        | 2               | 2/0–2/0                                    | 1                     |
|                    | Treble                 | 1               | 3, 2, 1/0                                  | 34                    |
|                    |                        | 2               | 5–5, 4–4, 3–3, 2–2, 1–1, 5–3, 4–3, 1/0–1/0 | 165                   |
| Wobbler            | Single                 | 1               | 3/0  | 62                    |
|                    | Treble                 | 1               | 1, 2                                       | 43                    |

<sup>a</sup> Vernacular of Oregon anglers for northern shrimp.

leased fish would survive. Lures were always removed regardless of where a fish was hooked. We did not tag fish that were foul hooked or had a severe injury unrelated to hooking. We placed the unanesthetized fish headfirst into a round, plastic cylinder mounted in the bottom of the tank. To calm the fish, the cylinder was darkened with a rubber covering. Fish were then tagged, swabbed with iodine at the tag insertion point to reduce the risk of infection, and released. Fish were tagged at the base of the dorsal fin with a heavy-duty, T-anchor tag (Floy FD-94) that was individually numbered and included an Oregon Department of Fish and Wildlife (ODFW) telephone number. The time to tag, measure, and release a hooked fish (process time) averaged 40 s (range 11–126 s).

We recorded the tag number, hook location, bleeding, fork length (cm; Figure 2), bait type (spinner, salmon eggs, etc.), and hook type (single or treble, number of hooks, and size). For the few fish simultaneously hooked in more than one hook

location on gear with two hooks, we recorded the hook location that would most likely cause the greatest reduction in survival (e.g., gills more likely than tongue). Fish hooked in the maxillary bone or the roof of the mouth were included with those hooked in the jaw. We recorded the elapsed time to unhook and remove the fish from the net once the fish was in the tank (unhook time) for a subsample of fish in 1999 and 2000. Sex of fish was not recorded because it could not be externally determined.

We tagged a control group of 825 Chinook salmon captured in the fishway at Willamette Falls during the same time that hooked groups were caught. One control group of 395 fish were trapped in the fishway and returned to the river (river control) in the same area that hooked groups were caught. Because we were uncertain how returning these fish to the river might affect their behavior, a second control group of 430 was released directly into the fishway (fishway control). The fishway trap had a small viewing window and pneumatically operated gates, which allowed us to shunt Chinook salmon into a cage or to pass them up the fishway if they were severely injured or already tagged. Trapped salmon ascended an aluminum steep pass (Clay 1995) into a water-filled, wooden trough 3.7 m long × 0.6 m deep. We gently herded individual fish into the narrow end of the trough (0.3 m wide) and into a V-shaped metal insert fitted with handles and a rubber hood. We processed the fish without anesthetic and in the same manner as the hooked group. We lifted the fish with the metal insert and slid them through a plastic tube back into the fishway above the trap (fishway control) or into an aluminum tube partially filled with water for transport to the river (river control). Fish in the fishway control group slid into a tank suspended in the

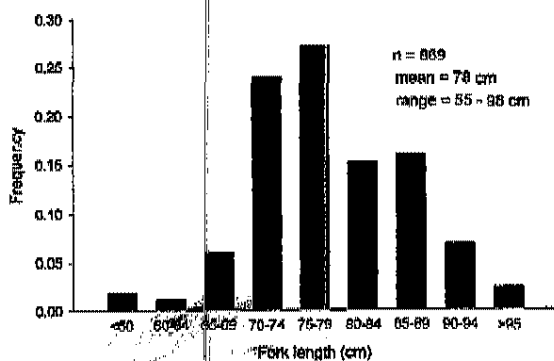


FIGURE 2.—Length-frequency histogram of spring Chinook salmon caught, tagged, and released in the experimental fishery for spring Chinook salmon at Willamette Falls, Willamette River, Oregon, 1998–2000.

## SALMON HOOKING MORTALITY BY ANATOMICAL SITE

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TABLE 2.—Recapture of adult spring Chinook salmon (*N*) tagged at Willamette Falls, Oregon, and the number of days from tagging to recapture, 1998–2000.

| Recapture Sites  | <i>N</i>         | Proportion recaptured by site |        | Days from tagging to recapture |         |
|------------------|------------------|-------------------------------|--------|--------------------------------|---------|
|                  |                  | Control                       | Hooked | Median                         | Range   |
| Hatcheries       | 508              | 0.74                          | 0.78   | 64                             | 13–152  |
| Traps            | 61               | 0.11                          | 0.07   | 57                             | 10–168  |
| Fisheries        | 88               | 0.13                          | 0.13   | 30                             | 1–95    |
| Spawning grounds | 13               | 0.02                          | 0.02   | 146                            | 118–168 |
| Combined         | 670 <sup>a</sup> |                               |        |                                |         |

<sup>a</sup> Of the 670 recaptures, 22 were recaptured below Willamette Falls, of which 14 were in the Clackamas River.

fishway. Fish in the river control group were transported by hand truck about 40 m along the top of the fishway and lowered into a tank suspended in the river. Fish in both groups volitionally swam out of the tanks after recuperating.

Length measurements of control fish may have been underestimated during the study because the V-shaped insert (with measuring scale attached) could easily slide away from the end of the trough while processing fish. The end of the trough formed the stop for the snout of the fish, and any movement of the insert would underestimate length. The magnitude of the measurement error could not be determined and precluded estimating lengths of control groups.

Three biologists tagged all fish and each tagged a similar number of hooked and control fish during sampling periods. We assessed tag loss in 1998 by tagging each fish with an additional filament tag (Floy FD-67F). Of 220 tagged fish examined in 1998, 1% had lost the numbered tag and 6% had lost the filament tag. Consequently, only a single, numbered tag was used to tag Chinook salmon after 1998.

A tagged Chinook salmon was considered a survivor if it was recaptured, regardless of the number of days after tagging. Fish from hooked and control groups were recaptured primarily at hatcheries (Table 2) because hatchery spring Chinook salmon compose a high percentage of Chinook salmon in the Willamette River. Tags were also collected from fish caught by anglers in the main stem and in tributaries, at traps on two tributaries, and on spawning grounds. The proportions of hooked and control fish recaptured were not significantly different among recapture sites ( $\chi^2 = 2.55$ ,  $df = 3$ ,  $P = 0.47$ ).

*Statistical analyses.*—Hooking mortality by hook location was estimated from combined 1998–2000 data. We used a chi-square test to compare recapture rates of river control fish with those of

fishway controls and found no significant difference within years ( $P = 0.07$ ,  $0.20$ , and  $0.93$  for 1998–2000, respectively) or among years ( $P = 0.82$ ). Recapture rates of the combined control groups were also not different among years ( $P = 0.19$ ). Based on the homogeneity of recapture rates of control fish, we pooled hooked fish over years, assuming that any differences in recapture rates were the result of factors associated with their catch and release.

We estimated a hooking mortality rate for each hook location ( $\hat{m}_l$ ) with the equation

$$\hat{m}_l = 1 - (a_l/b), \quad (1)$$

where  $a_l$  is the proportion of hooked fish recaptured for hook location  $l$ , and  $b$  is the proportion of control fish recaptured. The variance of ( $\hat{m}_l$ ) was estimated by methods described by Grover et al. (2002). If the 95% confidence interval (CI) calculated from this variance included zero, we concluded that mortality was not significantly different than zero.

We applied point estimates of hooking mortality by hook location in equation (1) to the frequency of those hook locations in the sport fishery by making two assumptions. First, we assumed that anatomical hook location is the primary factor affecting mortality of fish caught and released. Second, we assumed that fish hooked in the same hook location would suffer similar mortality regardless of the terminal gear used to hook the fish. This assumption was necessary because the terminal gear used in the experimental fishery did not cover the range of gear used by anglers in the sport fishery. To test these assumptions we used logistic regression models and the likelihood-ratio chi-square statistic (Agresti 1990; SAS Institute 2000) to identify factors that affected recapture rates. For factors with complete data sets (hook location, bleeding, gear type, fish length, and river flow;

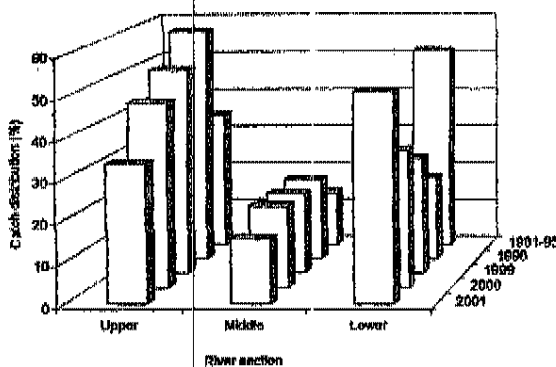


FIGURE 3.—Distribution of the angler catch of spring Chinook salmon in three creel survey sections of the Willamette River below Willamette Falls, 1998–2001, and the mean distribution in 1981–1995 (calculated from Foster and Boatner 2002). Additional angling regulations were enacted in 1998–2000 because of low run sizes.

$N = 869$ ) we used forward stepwise regression. For partial data sets (unhook time  $N = 465$ , processing time  $N = 252$ , and river temperature  $N = 643$ ) we used individual logistic regressions. We also used logistic regressions to determine if river flow and river temperature affected recapture rates of the control group.

#### Hooking Mortality in the Sport Fishery

Anatomical hook locations of spring Chinook salmon caught in the general sport fishery were determined for 1998–2001 via creel surveys of anglers conducted by ODFW in three sections of the lower Willamette River (Foster and Boatner 2002). Creel clerks recorded the hook location of caught salmon, the type of gear used by anglers, and the number of hours different types of gear were used.

The distribution of sport catch among the three survey sections has historically differed (Foster and Boatner 2002), but was atypical in 1998–2000, 3 of the 4 years we monitored hook locations in the sport fishery (Figure 3). Additional regulations were enacted in these 3 years because of low run sizes of wild fish. Mean frequency distributions of hook locations in 1998–2001 also differed among the three survey sections because anglers used different types of gear. Consequently, to obtain a single frequency distribution of hook locations that would represent a typical fishing season in the lower river, we calculated a mean frequency weighted by catch ( $\hat{w}_l$ ) for each hook location  $l$  with the equation

$$\hat{w}_l = \sum_{k=1}^3 \left[ \left( \frac{1}{4} \sum_{t=1998}^{2001} f_{tkl} \right) \left( \frac{1}{15} \sum_{t=1981}^{1995} c_{tk} \right) \right], \quad (2)$$

where  $f_{tkl}$  is the frequency that Chinook salmon in the sport fishery were hooked in anatomical location  $l$  in survey section  $k$  in year  $t$ , and  $c_{tk}$  is the proportion of sport catch in survey section  $k$  in year  $t$  (1981–1995 data from Foster and Boatner 2002).

Equations (1) and (2) were used to estimate a hooking mortality rate for Chinook salmon caught and released ( $\hat{s}$ ) in the lower Willamette River sport fishery as

$$\hat{s} = \sum_{l=1}^5 \hat{w}_l \hat{m}_l. \quad (3)$$

Hooking mortality relative to the run of wild fish ( $\hat{q}$ ) was then estimated as

$$\hat{q} = \hat{s} \left( \frac{1}{15} \sum_{t=1981}^{1995} h_t \right), \quad (4)$$

where  $h_t$  is the encounter rate in the sport fishery in year  $t$  (data from Foster and Boatner 2002). Encounter rates do not include sport fisheries in tributaries or in the main stem above Willamette Falls or account for multiple angler encounters with fish caught and released. The hooking mortality estimates of equations (3) and (4) also assume that wild Chinook salmon caught and released in a selective fishery would have the same distribution of hook locations as hatchery and wild Chinook salmon caught and kept in 1998–2001.

Confidence intervals for hooking mortality estimates ( $\hat{s}$ ) and ( $\hat{q}$ ) were calculated from bootstrap estimates of standard errors (Efron and Tibshirani 1993). Estimates of  $\hat{s}_{boot}$  and  $\hat{q}_{boot}$  were generated (1,000 repetitions) by resampling binomial distributions defined by  $\{N, p\}$  for each of  $a_t$  and  $b$  in equation (1), where  $N$  is the number of fish tagged, and  $p$  is the proportion of tagged fish recaptured; and by resampling from original data sets of  $f$ ,  $c$ , and  $h$  in equation (2) and equation (4). Confidence intervals (95%) were estimated as  $\hat{s}$  and  $\hat{q} \pm 2 SE_{boot}$ . Bootstrap estimates were normally distributed and bias between bootstrap means and original estimates of  $\hat{s}$  and  $\hat{q}$  were negligible ( $-0.02$  and  $-0.01$ , respectively).

We compared the effects on hooking mortality of additional regulation of fishing seasons in 1998–2000 with those in a typical season represented by 1981–1995 data. Additional regulations in 1998–2000 included early closures when catch quotas were reached, restricted days of the week, and reduced daily and annual creel limits. Regulations returned to normal in 2001, except that regulations

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TABLE 3.—Mortality rates by hook location of spring Chinook salmon that were caught in the experimental sport fishery, tagged, and released at Willamette Falls, Oregon, 1998–2000. Recapture of control groups, 1998–2000, is shown for reference.

| Group             | Number tagged | Number recaptured | Mortality rate (95% confidence interval) |
|-------------------|---------------|-------------------|--|
| <b>Hooked</b>     |               |                   |  |
| Jaw               | 633           | 270               | 0.023 (–0.068–0.113)                     |
| Tongue            | 39            | 14                | 0.177 (–0.103–0.458)                     |
| Eye               | 15            | 7                 | 0.000 <sup>a</sup> (–0.564–0.425)        |
| Gills             | 112           | 9                 | 0.816 (0.725–0.907)                      |
| Esophagus–stomach | 70            | 10                | 0.673 (0.523–0.822)                      |
| Control           | 825           | 360               |  |

<sup>a</sup> Mortality estimates less than zero were assumed to be zero.

required the release of unmarked Chinook salmon. We calculated a single frequency distribution of hook locations for 1998–2000 by weighting the mean frequency distributions of hook locations for each of the three survey sections by the mean proportion of catch in each section over the 3 years. Hooking mortality and bootstrap confidence intervals were calculated in the same manner as that for a typical fishing season described above.

### Results

#### Mortality in the Experimental Fishery

Because of confounding effects and small sample size, hooking mortality rates in the experimental fishery at Willamette Falls could not be isolated by the hook characteristics (i.e., hook type, number, size; Table 1) or by the five gear types. Therefore, terminal gear was grouped into only two gear types, bait (prawn, salmon eggs) and lure (spinner, plug, wobbler), and their significance in the stepwise model was examined.

Hooking mortality rates were lowest for Chinook salmon hooked in the jaw and highest for those hooked in the gills and in the esophagus–stomach (Table 3). Estimated mortality rates of fish hooked in the jaw, tongue, and eye were not sig-

nificantly different from zero ( $P = 0.71, 0.34, 0.81$ , respectively), although sample size for fish hooked in the eye was small (Table 3). Mortality rates of fish hooked in the gills and in the esophagus–stomach were significantly greater than zero ( $P < 0.001$ ).

Anatomical hook location was the primary factor affecting recapture of fish in the stepwise regression model (Table 4). Hook location accounted for 79% of the variation explained by the model, which validated one of the underlying assumptions of the study. Fish length, gear type, and bleeding were also significant factors in the model, but not river flow (Table 4). For partial data sets, processing time ( $P = 0.42$ ) and river temperature ( $P = 0.53$ ) were unrelated to recapture rates, but unhook time was significantly related ( $\chi^2 = 4.8$ ,  $df = 1$ ,  $P = 0.0339$ ). The mean time to unhook fish was lower for fish recaptured (34 s,  $SE = 2$ ) than for those not recaptured (39 s,  $SE = 1$ ). River flow ( $P = 0.68$ ) and river temperature ( $P = 0.64$ ) were not significant factors in the recapture of the control group.

The significance of gear type in the stepwise regression model invalidated our assumption of similar mortality within hook locations regardless of the gear used. To determine the potential effect on estimates of hooking mortality, we examined each hook location separately (logistic regression) to identify hook locations where recapture rates were significantly affected by gear. We found that gear type was not related to recapture of fish hooked in the eye ( $P = 0.20$ ), in the tongue ( $P = 0.48$ ) or in the gills ( $P = 0.42$ ), but was related to recapture of fish hooked in the jaw ( $P = 0.004$ ). Fish hooked in the jaw on lures were recaptured at a lower rate than those caught on bait, although fish hooked in the jaw had low mortality (2.3%) overall. Fish hooked on lures took longer to un-

TABLE 4.—Summary of the stepwise logistic regression analysis of explanatory factors on recapture rates of spring Chinook salmon caught and released in the experimental fishery at Willamette Falls, 1998–2000.

| Factor        | –2 Log likelihood | df | Chi-square value | P       |
|---------------|-------------------|----|------------------|---------|
| Intercept     | 1,132.332         |    |                  |         |
| Hook location | 1,055.515         | 4  | 76.817           | <0.0001 |
| Length        | 1,046.670         | 1  | 8.845            | 0.0029  |
| Gear          | 1,040.588         | 1  | 6.082            | 0.0137  |
| Bleeding      | 1,034.742         | 1  | 5.846            | 0.0156  |
| River flow    | 1,034.387         | 1  | 0.355            | 0.5513  |

TABLE 5.—Mean (SE) frequency distributions of hook locations by creel survey section for spring Chinook salmon caught in the lower Willamette River, Oregon, sport fishery, 1998–2001. The frequency distribution for combined sections was calculated by weighting each section distribution by 0.348 (SE = 0.020), 0.138 (SE = 0.009), and 0.514 (SE = 0.026), the mean proportions of total catch estimated annually in the upper, middle, and lower sections, respectively, in 1981–1995 (calculated from Foster and Boatner 2002).

| Hook location     | Creel survey section |               |               |                       |
|-------------------|----------------------|---------------|---------------|-----------------------|
|                   | Upper                | Middle        | Lower         | Combined <sup>a</sup> |
| Jaw               | 0.782 (0.051)        | 0.725 (0.048) | 0.862 (0.002) | 0.815 (0.021)         |
| Tongue            | 0.046 (0.015)        | 0.074 (0.006) | 0.049 (0.025) | 0.051 (0.014)         |
| Eye               | 0.007 (0.005)        | 0.007 (0.004) | 0.002 (0.002) | 0.004 (0.003)         |
| Gills             | 0.071 (0.024)        | 0.057 (0.015) | 0.036 (0.016) | 0.051 (0.005)         |
| Esophagus–stomach | 0.095 (0.033)        | 0.138 (0.038) | 0.051 (0.014) | 0.078 (0.011)         |
| Sample size       | 790                  | 508           | 732           | 2030                  |

<sup>a</sup> Bootstrap estimate of standard error.

hook (mean = 42 s, SE = 2) than did fish hooked on bait (mean = 30 s, SE = 2; *t*-test,  $P < 0.001$ ), which may have contributed to the lower recapture of fish hooked on lures. No fish were hooked in the esophagus–stomach on lures.

#### Hooking Mortality in the Sport Fishery

We examined the anatomical hook locations of 2,030 spring Chinook salmon caught by sport anglers in the lower Willamette River in 1998–2001. Most of these fish (81.5%) were hooked in the jaw (Table 5). Fish hooked in locations producing high mortality (gills or esophagus–stomach), composed 12.9% of the catch. Based on hook location frequencies in the sport fishery and the corresponding hooking mortality rates for each hook location in the experimental fishery, we estimated a hooking mortality rate of 12.2% (95% CI = 1.8–22.6%) for wild spring Chinook salmon that would be caught and released in a selective sport fishery in the lower Willamette River. Hooking mortality relative to the run of wild Chinook salmon in the Willamette River was 3.2% (CI = 0.5–5.9%) based

on a mean encounter rate of 26% (SE = 1%) in 1981–1995 (calculated from Foster and Boatner 2002).

The frequency distribution of hook locations varied among survey sections (Table 5) and was generally associated with differences in the type of gear anglers used to catch Chinook salmon (Table 6). Bait predominated in all survey sections, but Pacific herring *Clupea pallasii* was most commonly used in the lower section and prawns (vernacular of Oregon anglers for northern shrimp *Pandalus borealis*) or ghost shrimp *Callinassa* sp. were most commonly used in the upper section. Anglers who used prawns or ghost shrimp generally hooked more fish in the gills and esophagus–stomach and fewer in the jaw than did anglers who used Pacific herring or lures (Table 7).

When additional regulations were enacted in 1998–2000, the catch distribution of Chinook salmon shifted from the lower survey section to upper survey sections compared with 1981–1995 and with 2001 (Figure 3). Because anglers in upper sections used a higher proportion of gear that

TABLE 6.—The mean (SE) frequency distribution of hours that anglers used different types of gear to fish for spring Chinook salmon in each of three creel survey sections of the lower Willamette River, Oregon, 1998–2001. Frequencies may not add to 1.00 due to rounding.

| Gear type                    | Mean (SE) frequency of gear usage by survey section |              |              |
|------------------------------|---|--------------|--------------|
|                              | Upper   | Middle       | Lower        |
| Pacific herring <sup>a</sup> | 0.06 (0.01)   | 0.52 (0.06)  | 0.74 (0.05)  |
| Prawn or ghost shrimp        | 0.53 (0.04)   | 0.38 (0.05)  | 0.06 (0.01)  |
| Salmon eggs <sup>b</sup>     | 0.06 (0.02)   | <0.01 (0.00) | <0.01 (0.00) |
| Spinner                      | 0.13 (0.00)   | 0.05 (0.01)  | 0.10 (0.02)  |
| Plug                         | 0.07 (0.02)   | 0.04 (0.01)  | 0.08 (0.02)  |
| Wobbler                      | 0.05 (0.02)   | 0.01 (0.00)  | 0.01 (0.00)  |
| Winged attractor             | 0.10 (0.05)   | <0.01 (0.00) | <0.01 (0.00) |
| Miscellaneous                | 0.01 (0.00)   | <0.01 (0.00) | 0.01 (0.00)  |

<sup>a</sup> Includes a few northern anchovies *Engraulis mordax*, Pacific sardines *Sardinops sagax*, and eulachons *Thaleichthys pacificus*.

<sup>b</sup> Includes salmon eggs used in combination with prawns or ghost shrimp.

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TABLE 7.—Frequency distributions of hook locations for the three most common types of gear used to catch spring Chinook salmon in the lower Willamette River, Oregon, sport fishery, 1998–2001.

| Year                         | Location |        |      |       |                   | Sample size |
|------------------------------|----------|--------|------|-------|-------------------|-------------|
|                              | Jaw      | Tongue | Eye  | Gills | Esophagus–stomach |             |
| <b>Pacific herring</b>       |          |        |      |       |                   |             |
| 1998 <sup>a</sup>            | 0.84     | 0.15   | 0.00 | 0.00  | 0.02              | 117         |
| 1999                         | 0.83     | 0.04   | 0.00 | 0.06  | 0.06              | 309         |
| 2000                         | 0.85     | 0.03   | 0.01 | 0.03  | 0.08              | 349         |
| 2001                         | 0.82     | 0.06   | 0.01 | 0.05  | 0.06              | 86          |
| <b>Prawn or ghost shrimp</b> |          |        |      |       |                   |             |
| 1998                         | 0.58     | 0.05   | 0.00 | 0.15  | 0.22              | 81          |
| 1999                         | 0.84     | 0.03   | 0.00 | 0.03  | 0.10              | 213         |
| 2000                         | 0.71     | 0.07   | 0.01 | 0.07  | 0.14              | 364         |
| 2001                         | 0.72     | 0.11   | 0.01 | 0.11  | 0.05              | 117         |
| <b>Spinner</b>               |          |        |      |       |                   |             |
| 1998                         | 0.96     | 0.04   | 0.00 | 0.00  | 0.00              | 23          |
| 1999                         | 0.89     | 0.03   | 0.00 | 0.03  | 0.05              | 37          |
| 2000                         | 0.83     | 0.08   | 0.04 | 0.04  | 0.02              | 52          |
| 2001                         | 0.85     | 0.03   | 0.00 | 0.09  | 0.03              | 59          |

<sup>a</sup> Includes one fish caught on a northern anchovy.

hooked fish in the gills and esophagus–stomach (Tables 6, 7), hooking mortality estimates increased from 12.2% for typical years (1981–1995) to 14.3% (CI = 3.5–25.0%) in 1998–2000. However, the increased hooking mortality in 1998–2000 was offset by a reduction in mean encounter rate from 26% in 1981–1995 to 11% (SE = 3%) in 1998–2000 (calculated from Foster and Boatner 2002). The addition of catch-and-release regulations for Chinook salmon in 2001 did not change the catch distribution among survey sections compared with the distribution in 1981–1995 (Figure 3).

### Discussion

We found that hooking mortality of spring Chinook salmon caught and released in the lower Willamette River sport fishery is largely dependent on anatomical hook location, which is consistent with other hooking mortality studies on salmon (Wertheimer 1988; Bendock and Alexandersdottir 1993; Gjernes et al. 1993; Grover et al. 2002). Length, gear type, bleeding, and unhook time were also significantly related to recapture of hooked fish. Other studies have shown that bleeding is a significant factor in survival of fish caught and released (Wertheimer 1988; Bendock and Alexandersdottir 1993). The significance of length in our study was difficult to interpret because of the absence of length data for the control group. Size effects could be a function of natural mortality

above Willamette Falls or of being caught and released. Natural differences in size-related mortality are unknown but could have affected estimates of hooking mortality if lengths differed between hooked and control groups. The significance of gear type invalidated our assumption that fish hooked in the same anatomical location would suffer similar mortality regardless of the gear used because fish hooked in the jaw with lures had lower recapture rates than those hooked in the jaw on bait. Fish hooked on lures took longer to unhook than fish hooked on bait, and unhook time was inversely related to recapture rates.

Because about 60% of the jaw-hooked fish caught in our experimental fishery were hooked on lures compared with about 20% in the sport fishery, we may have overestimated hooking mortality for the jaw. Had we used the same ratio of lures and bait as in the sport fishery, hooking mortality would have been reduced from 12.2% to 10.3% for fish caught and released and from 3.2% to 2.7% relative to the run. However, bait (prawns and salmon eggs) and lures (spinners and plugs) were broad categories within which components (hook types, hook sizes and body styles, etc.) could not be isolated in our study. In addition, the range and intensity of use of specific types of terminal gear differed between the sport fishery and the experimental fishery. For example, Pacific herring was not used in the experimental fishery but was common in the sport fishery and had a hook location profile more similar to lures than to bait. Therefore, the adjustments in hooking mortality estimates because of differences between bait and lures should be viewed with caution.

Our estimate of 3.2% hooking mortality for wild spring Chinook salmon in the lower Willamette River sport fishery does not include fisheries in the main stem above Willamette Falls or in tributaries, which accounted for about 30% of the total annual harvest in 1981–1995 (calculated from Foster and Boatner 2002). Combining all fisheries, we estimate that sport anglers would encounter 37% of the wild spring Chinook salmon in the Willamette Basin. Assuming the hooking mortality rate of 12.2% estimated in the lower river fishery is applicable to other fisheries in the basin and by using a 6.4% multiple encounter rate for fish previously caught and released (ODFW 2001), we estimate the basinwide mortality for the run of wild spring Chinook salmon would be 4.8% in a catch-and-release fishery. This estimate assumes that the frequency distribution of hook locations in the main stem above the falls and in tributaries is the



same as that in the lower Willamette River sport fishery. However, we found that the distribution of hook locations depends on the types of gear anglers use and that gear types varied among survey sections below Willamette Falls. Predominant gear types and the resulting hook location distributions are unlikely to be the same in upper and lower river fisheries. Hooking mortality in other rivers would depend on the type of gear anglers use, the hook location distribution, and river-specific encounter rates.

Our hooking mortality rate of 12.2% for Chinook salmon that are caught and released is higher than the 7.6% mortality rate reported for a Chinook salmon fishery in the Kenai River, Alaska (Bendock and Alexandersdottir 1993). Anglers in the Willamette River hooked a higher percentage of fish in the esophagus-stomach (7.8%), a high mortality location, than in the Kenai River (0%). In addition, water temperatures in the Willamette River during tagging averaged 12.8°C compared with mean water temperatures of 10.7°C in the Kenai River during tagging (calculated from Bendock and Alexandersdottir 1990, 1991, 1992). Studies have consistently demonstrated that hooking mortality increases with water temperature (reviewed in Muoneke and Childress 1994).

Our estimate of hooking mortality for Chinook salmon caught and released in the Willamette River is essentially the same as the 12.3% estimated for sport fisheries in saltwater targeting Chinook salmon 33 cm or larger (CTC 1997). The hooking mortality rate of 32.2% estimated for Chinook salmon less than 33 cm (CTC 1997) is considerably higher than our estimate, but most Chinook salmon in our study were much larger than 33 cm and none were smaller. Estimates of hooking mortality in commercial troll fisheries for legal and sublegal Chinook salmon are nearly double those in sport fisheries (Wertheimer 1988; CTC 1997).

Several studies have considered the tongue, eyes, gills, and esophagus-stomach to be "critical" or "vital" hooking locations that result in high mortality of released fish (Mongillo 1984; Muoneke and Childress 1994). The tongue, gills, and eyes were considered vital hooking locations of Chinook salmon in the Kenai River (Bendock and Alexandersdottir 1993). None of their study fish were listed as being hooked in the esophagus-stomach, although about 50% of the fish tagged had been caught on bait by sport anglers. We found that mortality rates of fish hooked in the eye and the tongue were not significantly different from zero, but sample sizes for the eye were small. In

contrast, fish hooked in the gills and the esophagus-stomach had high mortality rates. In a study of the California ocean sport fishery (Grover et al. 2002), mortality from hook injury of the eyes was 46%, but the incidence of that injury in the fishery was low (6%). Circle hooks used in that study were reported to be difficult to remove from the eye. The mortality rate for fish hooked in the esophagus-stomach in the California fishery was 85%, higher than the 67% we observed in the Willamette River. However, their estimate for this location was partially based on projected mortality of fish killed and necropsied after they had survived a 4-d holding period. Our estimate of mortality for Chinook salmon hooked in the gills was 81%, similar to the 73% observed in the Kenai River (calculated from Bendock and Alexandersdottir 1992) and the 83-85% for Chinook salmon taken in the Alaskan troll fishery (Wertheimer 1988; Wertheimer et al. 1989).

Our estimates of hooking mortality could be low if we removed hooks more gently from fish than would anglers. However, we also assessed bleeding, measured length, and tagged the fish before it was released, time anglers would not spend before releasing fish. In addition, we hoisted fish into the processing tank inside the boat exposing them briefly to air. Air exposure has been shown to increase mortality (Ferguson and Tufts 1992). The lower Willamette River fishery is primarily a boat fishery, so it is unnecessary for anglers to expose fish to the air before removing hooks. With education, we expect that most anglers would use more care in releasing unmarked spring Chinook salmon.

Hooked fish were recaptured at various sites at about the same frequency as control fish, indicating catch-and-release angling did not influence the migratory behavior of fish that survived. Most of these fish were recaptured at hatcheries where they were used as part of the broodstock, although the reproductive success of experimental fish was not determined. Two studies found that catch and release of steelhead did not affect their return to spawning streams (Pettit 1977; Hooton 1987). Catch-and-release angling also did not influence the reproductive success of steelhead (Pettit 1977) or of Atlantic salmon *Salmo salar* (Booth et al. 1995).

Our study showed that a selective sport fishery requiring the release of wild spring Chinook salmon can decrease harvest mortality while maintaining sport catch of hatchery Chinook salmon. Managers can reduce hooking mortality of wild fish by regulating terminal gear to decrease the incidence

of hooking fish in the gills and the esophagus or stomach in fisheries where these hook locations are common. For example, eliminating the use of bait may reduce the incidence of deeply hooked fish and reduce mortality, although in the Willamette River sport fishery the distribution of hook locations for some baits was similar to that of lures. However, eliminating the use of bait may also reduce the catch of hatchery fish. Educating anglers in proper release techniques would also reduce hooking mortality. For example, cutting the line has been shown to reduce postrelease mortality of deeply hooked fish (Munneler and Childress 1994; Schill 1996; Schisler and Bergersen 1996). Cutting the line should be encouraged but may not be acceptable to anglers when fish are deeply hooked with expensive lures. Fish should be kept in the water and unhooked quickly because we found that mortality was higher for fish that took longer to unhook. Managers should be aware that changes in angling regulations can shift effort among river sections, which could affect hooking mortality provided fishing techniques also vary among sections.

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To:  
Board of fisheries  
State of Alaska

From:  
David Hilty  
1834 Mission Rd  
Kodiak Ak, 99615

**This is a letter of support for proposal 10 of the Bristol Bay management plan.**

Dear Mr. Chairman and board members.

My name is David Hilty, I am a thirty five year resident of Alaska and have been involved in the commercial fishing industry for my entire working career. I have also been involved in the Dutch Harbor Food and Bait fishery as a fish spotter for the last 20 years.

The Dutch Harbor food and bait fishery has a long history of supplying bait herring to the Bering Sea crab, pot cod and long line fleet. In recent years with increased crab and cod quotas, there has been more demand for Dutch Herring than the existing harvest level can supply, which has forced suppliers to buy bait from outside of Alaska to fulfill the fishermen's needs. **Proposal 10, if approved would allow the utilization of a portion of a the Togiak quota that has not been used for nearly the last ten years and re enter it into a fishery that has high demand and currently garners a higher price than any other Togiak herring product.**

It is my hope that in the future all Togiak herring markets and demand will improve and that roe on kelp quota will be harvested for its intended purpose. But until then, please vote for proposal 10 to allow Alaskans to harvest this otherwise stranded quota for the benefit of the State, the fisheries and fishermen.

Thank you,  
David Hilty

Board of Fisheries Comments  
PO Box 115526  
Juneau, AK 99802  
907-465-6094 fax

Please consider modification to Proposal 239-5AAC 67.022(g)(6)

**"SUPPORT AS AMENDED"**

Support "Single Hook"

Oppose "No Bait"

Members of the Board,

As the managers of this precious resource, your responsibility is to make quality decisions on how best to utilize the resource while ensuring healthy escapement to seed future returns. Using the best available science and a little common sense will almost always lead you to that quality decision. I gladly travel to Alaska every year to sportfish, and spend a substantial amount of money while there just like most sport fisherman do, and I'm counting on you to make a quality decision on this issue.

As someone who has been involved fisheries conservation issues for several years, it is concerning that there is NO DATA accompanying this "ISSUE". As with all decisions in life, the more information you possess the better decision you are able to make. Without first determining that there actually is a problem, and then quantifying the size of it, you are attempting to solve a problem that may not even exist.

#### **Single Hook Provision:**

**I am in favor of going to single hook only for the entire Nushagak Mulchatna watershed.**

Hook mortality studies that I have seen are inconclusive as to whether single hooks are clearly the best choice. Some studies show a benefit to utilizing single hooks, while at least one study indicates that deep hooking fish is more likely with single point vs. treble hooks, resulting in higher mortality. With that said, it is my experience that your ability to quickly unhook and release fish is substantially improved with a single hook.

This proposal makes some sense.

#### **No Bait Provision:**

**I am not in favor of the No Bait provision.**

This provision essentially already exists within the Nushagak Mulchatna King Salmon Management Plan. ADFG can already implement this measure whenever they feel that it is necessary.

The overwhelming benefit from going "No Bait" is less harvest. Currently, the sport fishery on the Nushagak River is utilizing roughly half of its 5,000 fish allocation in the Nushagak Mulchatna King Salmon Management Plan.

**You are solving a problem that doesn't exist.**

Lastly, I have to question the motives for this proposal. When reading "WHO IS LIKELY TO BENEFIT/SUFFER", there is no mention of any conservation benefit, just reducing catch rates of sport anglers. According to the NMKSMP, there is no need to reduce this rate. If allocation needs to be addressed, it would appear as though that should happen in a different forum.

Please make a quality decision in this matter.

Respectfully,

Stan Brogdon  
President, CCA Washington

BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals to 36, 37, 38, 39 and 40 for Permit Stacking**

**A. Other Alternatives For Profitable Fishing**

There are comparatively better alternatives to improving the financial bottom line for fishermen than giving an "additional opportunity" to dual permit holders. In 2002, United States Senator Ted Stevens said, "We have a price problem, and the price comes from competition overseas."<sup>1</sup> The Bristol Bay Economic Development Corporation (BBEDC), and Bristol Bay Regional Seafood Development Association (BBRSDA)<sup>2</sup> are focusing on quality and increasing the price for fishermen.

Substantial progress is being made in the fishery in these areas. Ice barges, ice machines, and other equipment exist where they did not before. The vigorous, focused effort has been making a difference. From 2002 to 2011, average gross earnings for Bristol Bay drift netters and set netters increased dramatically: driftnetters, \$21,480 (2002) to \$70,236 (2011), and b) setnetters, \$11,167 (2002) to \$31,210 (2011).<sup>3</sup> Permit prices show a similar upward movement: a) driftnetters, \$19,700 (2002) to \$143,900 (2011); and b) \$11,900 (2002) to \$35,900 (2011).<sup>4</sup> In 2012, fishermen received an estimated \$1.15/lb. for chilled sockeye.<sup>5</sup>

These efforts are positive for all fishermen and lift all boats. They avoid negativity and arguments among fishermen.

**B. Permit Stacking**

**1. Eliminate Present Permit Stacking.**

I ask that the Board eliminate the present permit stacking in which two permit holders can

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<sup>1</sup> Anchorage Daily News, February 24, 2002, E-1, "Salmon Solution."

<sup>2</sup> [www.bbrsda.com](http://www.bbrsda.com), Projects and Strategies, Improving Quality and Value.

<sup>3</sup> Commercial Fisheries Entry Commission website, Fishery Statistics, Fishery Participation and Earnings, SO3T and SO4T Salmon, Drift Gillnet, Bristol Bay. Non-resident fishermen's gross earnings were even higher.

<sup>4</sup> Commercial Fisheries Entry Commission website, Permit Value Report (SO3T and SO4T), [http://www.cfec.state.ak.us/pmtvalue/X\\_S03T.HTM](http://www.cfec.state.ak.us/pmtvalue/X_S03T.HTM), and [http://www.cfec.state.ak.us/pmtvalue/X\\_S04T.HTM](http://www.cfec.state.ak.us/pmtvalue/X_S04T.HTM). Drift Permit value decreased to estimated \$96,700 in October 2012, but set net permit value continued to increase to estimated \$42,200 in October 2012.

<sup>5</sup> Base price: <http://www.adfg.alaska.gov/static/home/news/pdfs/newsreleases/cf/226013052.pdf>, at pages 1-2, and chilling bonus: my own chilling bonus.

fish 200 fathom of gear. It creates two classes of fishermen. Further, it allows those with 200 fathom to cork those with 150 fathoms, creating an unfair advantage for those with 200 fathoms. It is more difficult fishing against someone with a longer net. Also, when processors impose limits, those with 200 fathoms are allowed higher limits. When processors give price adjustments, those with 200 fathoms appear to be the producers and obtain the price adjustments while those with 150 fathom may have been better fishermen in terms of quality and fish caught/fathom fished but do not get the adjustment.

## **2. If Don't Eliminate Present Permit Stacking, Retain Current Permit Stacking Without Modification.**

If the Board is going to allow permit stacking, I ask that it retain the present permit stacking without modification. The intent of the present permit stacking was to allow a fisherman with insufficient capital to join with another fisherman to fish for their mutual benefit. The Board should limit this means of permit stacking to this original intent.

## **3. Do Not Expand Permit Stacking.**

The Board should not expand permit stacking to allow one fisherman to own and fish more than one permit. This creates two classes of fishermen. It favors the "well-to-do" over the less affluent. It will have a disparate impact on watershed residents who have fewer job opportunities than those who live in urban areas. I ask that the Board give substantial weight to the goal of AS 16.43.290(3) by considering:

the number of entry permits sufficient to avoid serious economic hardship to those currently engaged in the fishery, considering other economic opportunities reasonably available to them.

*Id.*

Additionally, every fisherman historically has fished the same length of net (150 fathoms) in the drift fishery. Allowing one fisherman to fish more net than another fisherman allocates fish among drift fishermen. Obviously, the fisherman with more net will almost certainly catch more fish than one with less net. The Board will be dividing fish within a group that has historically fished on equal footing in terms of net. Fishermen entered the fishery with the understanding that everybody fished the same length net.

A huge flaw with the proposals is that the real determining factor is how "rich" you are. Most fishermen I know cannot afford to buy a second permit.<sup>6</sup> Only the wealthy can actually afford a second permit unless someone inherits one. The proposals do not consider time fished, investment made, a reasonable average rate of return to the fishermen participating in the fishery, serious economic hardship to those engaged in the fishery, and other economic opportunities reasonably available to those fishermen engaged in the fishery. See AS 16.43.290.

As stated above, in 2011, the average gross earnings for driftnetters was \$70,236. We

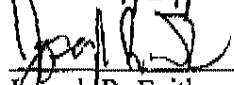
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<sup>6</sup> Commercial Fisheries Entry Commission website, Permit Value Report (SO3T).



have other alternatives that are much better than permit stacking to increase the financial bottom line for fishermen. BBEDC, a watershed Corporation, deserves credit for its substantial financial effort and contribution in raising the tide for all boats.

Dated: 11/19/12



Joseph R. Faith  
PO Box 1316  
Dillingham, AK 99576  
Bristol Bay Drift (S03T) Permit Holder  
*F/V Margo*

BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals to 58, 59, 60, and 61 for a General District**

I oppose the proposals for the creation of a general district. These proposals amount to interception of fish headed to a terminal fishery. The proposals for a general district after July 17 or after August 1 could easily result in the interception of silvers and reds headed for other districts such as the Nushagak and Togiak districts. Interception obviously can have serious consequences on escapement in terminal rivers, as well the well being of subsistence, sport, and commercial fisheries in the terminal rivers.

Dated: 11/19/12



Joseph R. Faith  
PO Box 1316  
Dillingham, AK 99576  
Bristol Bay Drift (S03T) Permit Holder  
*F/V Margo*

BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

COMMENT

Opposition to Proposals to 63, 64, and 65 for Bristol Bay Allocation Plan

I oppose the allocation plans of the above proposals. They are actually reallocation plans to benefit one group at the expense of another group. I can't afford to give up income that helps feed my family. The present allocation plans are based on historical catches in the various fishing districts.

Dated: 11/19/12

  
Joseph R. Faith

PO Box 1316

Dillingham, AK 99576

Bristol Bay Drift (S03T) Permit Holder

F/V Margo

BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals 32, 33, 34, 35, and 36 to Eliminate 32-Footer Vessel Rule**

**1. 32-Footer Very Effective**

The Board should make rules for the general situation, not the exception. 32-foot boats adequately handle every fishing period for almost every fisherman every year. 32-footers are more boat than is needed for the amount of fish caught almost always. One period, maybe two, a year a few fishermen could use a bigger boat when they catch a boatload. But the Board should not change the policy to accommodate such a limited circumstance. The rest of the year, these fishermen, as well as all other fishermen, have extra space on a 32-footer.

**2. Proposal Promotes Race For Bigger Boats And Overcapitalization**

Allowing bigger boats into the fishery will cause overcapitalization of the fishery. Practically everything that has to be replaced or repaired on a bigger boat will cost more (i.e. engine replacement, shafts, props, RSW, etc.). Bigger boats will result in more expenses and waste of resources. We should not be figuring out ways to increase expenses for fishing operations. We should be figuring out ways to increase profits, so fishermen have more take-home pay.

Allowing bigger boats would likely set off a race to own bigger boats. To keep up, fishermen will necessarily pay substantial amounts for bigger boats and create more debt, causing more economic distress to the fishery.

On a related subject bigger boats will likely set the wheels in motion for future Board meetings at which the Board will be asked to reduce the number of permits to another optimum level. Bigger boats will have higher expenses. To justify the higher expenses, those fishermen will want more fish to pay those expenses and will want to get those fish from other fishermen.

**3. Proposal Promotes Race for Fish**

With bigger boats, fishermen will want to fill their boats with fish. There won't be enough fish to fill the capacity of the bigger boats. The present fleet of 32-footers can already catch more than 100% of the run. The race for fish will be on. There will be increased competition on the fishing grounds. There will be increased demands on Fish and Game from frustrated fishermen who aren't catching enough fish during the season. As mentioned above, there will more Board of Fish meetings to figure out how to accommodate the increased capacity of the fishing fleet.

#### **4. Quality Can Already Be Achieved With 32-Footers**

Quality can already be achieved with 32-foot boats. The quality problem is not due to the length of a 32-footer. The quality problem for drift netters is due to long sets, round hauling, improper fish handling, compressing fish, holding fish too long, not cooling fish, fish pumps on tenders, and canning fish.

Increasingly more 32-foot boats have RSW and slush systems and achieve quality with both systems. The obstacle to an RSW system has little to do with the capacity of a 32-footer, but rather everything to do with the cost of installation and maintenance. Show an RSW company the money, and the RSW company will show anybody a unit that will work on any 32-footer.

The processor also help obtain quality by requiring delivery every 8 hours. Similarly, Fish and Game assists quality with shorter fishing periods (i.e. 4 hours) that result in fish being delivered to the processor.

Moreover, quality could easily be reduced with bigger boats because it will increase the likelihood that bigger boats will hold the fish on their boats longer than 32-footers do now. Some of the larger boats already hold their fish for 24 hours, as compared to only 4 to 8 hours for most of the boats in the fishery.

#### **5. Quality Is Being Addressed By Private Industry and Fishermen**

Quality is being addressed by the Bristol Bay Economic Development Corporation, Bristol Bay Regional Seafood Development Association, processors, and fishermen.

In recent years, substantial progress has been made with respect to quality:

- an ice barge in the Nushagak district;
- an ice barge in the Naknek/Kvichak district;
- an ice barge in the Egegik district;
- an ice machine at the processing plant in Ekuk;
- an ice machine at the boat harbor in Dillingham.
- an ice machine on a private tender tendering for Icicle on the Nushagak;
- an ice machine at the Togiak Fisheries plant in the Togiak district.
- an ice machine used by Cooper River Seafoods in the Togiak district.

Market prices are doing an effective job of pushing every fisherman to focus on quality. In 2012, fishermen received an estimated \$1.15/lb. for chilled sockeyes (\$1.00 base price plus .15 for chilling bonus.<sup>1</sup>)

#### **6. Quality Depends On Individual Fishermen, Not Bigger Boats**

As stated above, quality is a function of many factors such as long sets, handling fish properly, compressing fish in the holds, chilling, and so forth. A bigger boat does not mean that any of these factors will be addressed. It still comes down to how these

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<sup>1</sup> Base price: <http://www.adfg.alaska.gov/static/home/news/pdfs/newsreleases/cf/226013052.pdf>, at pages 1-2, and chilling bonus: my own chilling bonus.

factors are addressed by individual fishermen.

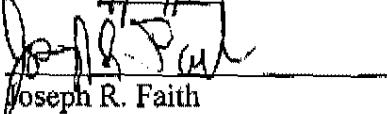
**7. Claim that Fishermen Will Use Bigger Boat For Processing Is Speculation**

There is also a claim that bigger boats will allow for more on-board processing. How many fishermen is this? Without actual numbers, the Board will simply be speculating and could be making a decision based on something that won't happen much, if at all. Further, nothing is stopping anybody from bringing in a bigger boat now and processing off it. That's what processors do. The opportunity to process off a bigger boat already exists.

**8. Infrastructure Changes in Bay Communities Will Require Time and Money**

Bigger boats will require changes for boat hauling, harboring, and storage in Bay communities. Boat haulers will need bigger trailers. Boat storage spaces will have to be enlarged. Boat harbors will have to create special areas for bigger boats, and likely are too small now to accommodate a lot of bigger boats and likely will require expensive expansion projects.

Dated: 11/19/12



Joseph R. Faith

PO Box 1316

Dillingham, AK 99576

Bristol Bay Drift (S03T) Permit Holder

F/V Margo

BEFORE THE ALASKA BOARD OF FISHERIES  
FOR THE DECEMBER 2012 MEETING AT NAKNEK

**COMMENT**

**Opposition to Proposals to 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, and 54 for Repeal of Sunset Clause for Set Net Permit Stacking**

**1. Permit Stacking Will Benefit the “Well to Do” At the Expense of the Poorer Fisherman With a Smaller Operation, and Local Watershed Communities**

Permit stacking will favor the “well to do” over the less affluent. Most fishermen I know cannot afford to buy a second permit.<sup>1</sup> According to the CFEC, “since January of 2010, when permit stacking was allowed, the fair market value of set gillnet permits rose 64.2% from \$25,700 to \$42,200.”<sup>2</sup> New entrants into the set net fishery “went to a historic low of 6% in 2011.”<sup>3</sup> Permit stacking has largely benefited non-residents and nonlocals, not local watershed residents. “Starting in 2010, when permit stacking regulations came into effect, the count of individuals who held two permits at year-end rose substantially, especially among nonresidents and nonlocals.”<sup>4</sup> In 2012, ninety-two non-residents and nonlocals stacked permits, while only thirteen locals stacked them.<sup>5</sup>

The acquisition of dual permits will not be based on dependence on the fishery of fishermen and local communities, or other alternative jobs one has in his region (AS 16.43.290(3)), but on the wealth of the purchaser of the second permit. Permit stacking is more realistically a device to allocate the resource away from the small and poorer fishermen, thereby creating serious economic impacts on local communities.

**2. Permit Stacking By A Single Person Will Create Two Classes of Setnetters: Dual Permit Owners, and Single Permit Owners.**

Permit stacking by a single person will create two classes of setnetters: dual permit owners, and single permit owners. Notwithstanding AS 16.05.251, which allows “additional fishing opportunity,” a fisherman with dual permits will be granted an allocation of fish over a fisherman with a single permit, greatly changing the traditional fish allocation amongst fishermen within a single fishery. According to the CFEC, “[e]ach of the single permit operations effectively landed fewer fish as stacked operations increased their share of the landings.”<sup>6</sup>

A fisherman with dual permit owners will receive an allocation of fish not received by a

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<sup>1</sup> Commercial Fisheries Entry Commission website, Permit Value Report (SO4T).

<sup>2</sup> CFEC Report No. 12-02-N, Bristol Bay Set Gillnet Permit Stacking, at page 15, November 2012.

<sup>3</sup> *Id.*, at page 13.

<sup>4</sup> *Id.*, at page 5.

<sup>5</sup> *Id.*, Table 1, at page 5.

<sup>6</sup> *Id.*, at page 12.

fisherman with a single permit by virtue of being able to put more net in the water and assuredly catch more fish. Dual permit owners will also be able to cycle two fifty fathom nets to double the catch they traditionally would have caught with only one net, depriving other set netters fish they would have traditionally caught.

Processors will almost certainly favor dual permit owners over single permit owners by giving dual permit owners higher limits on limit days, and giving them production bonuses for delivering more poundage when a single net owner may have, in fact, delivered higher quality fish.

Dual permit owners, under current regulation, will be able to split their two nets, giving them opportunities to fish on one—two—three—or four site(s), as compared to two at most for the single permit owner. It seems that enforcement will have an almost impossible task of enforcing laws, with a set net permit holder having the ability to fish a combination of nets, including cycling those nets, on multiple sites, miles apart.

Permit stacking will also creates an environment for a hostile takeover mentality of the single permit holders by squeezing them out of the fishery through the many advantages the dual permit owner will receive over the single permit owner.

### **3. Permit Stacking Has The Potential To Unconstitutionally Impinge on the Common Use And No Exclusive Fisheries Clauses of the Alaska Constitution**

Permit stacking has the potential of impinging too much on the common use and no exclusive fisheries clauses of Alaska's constitution. Permit stacking could cut the number of set net fishermen in half from the traditional number of 993 fishermen to 497 fishermen<sup>7</sup> and become too exclusive.

Dated: 11/19/12

  
\_\_\_\_\_  
Joseph R. Faith

PO Box 1316

Dillingham, AK 99576

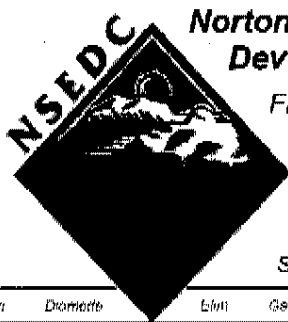
Bristol Bay Drift (S03T) Permit Holder

F/V Margo

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<sup>7</sup> *Id.*, Table 1, at page 5 (993 SO4T permits in 2003).





**Norton Sound Economic  
Development Corporation**

*Fisheries Research  
& Development*

*Serving the fisheries of the Bering Strait Region*

Bering Sea/ Bristol Bay/ Chukotka/ Diomedes/ Ektai/ Gambell/ Kotzebue/ Kotzebue Sound/ Nome/ Saint Michael/ Savoonga/ Shishmaref/ St. Lawrence/ Teller/ Unalakleet/ Wales/ White Mountain

November 16, 2012

Attn: BOF COMMENTS  
Board Support Section  
Alaska Department of Fish and Game  
PO Box 115526  
Juneau, AK 99811-5526

Dear Board members:

We are writing in opposition of Bristol Bay Herring Proposal 13. Closing the Togiak fishery until 2016 will have unattended consequences for other herring fisheries in Western Alaska. This proposal will not address the first issue listed in the proposal as being lack of participation by local residents. The other issue listed of lost opportunity for harvesting subsistence herring roe on kelp could be addresses in other way without the drastic measure of closing the fishery.

The Togiak herring fishery is the major producer of Bering Sea herring. If this fishery is closed the markets for Bering Sea herring will likely dry up. The rest of western Alaska does not product enough herring to keep these markets open. A reduction in the amount of herring available from Togiak would likely improve the ability of the small fisheries in Western Alaska to sell herring but a closure of Togiak will harm these smaller fisheries.

The Norton Sound fishery relies on a processor to come north after the Togiak fishery is complete and before Bristol Bay salmon fishery. Without the Togiak fishery the cost to bring a processor to Norton Sound before Bristol Bay Salmon will make it uneconomical to do so.

Local participation in the fishery will only decrease a three year closure of the fishery.

A better solution to improve the subsistence spawn on kelp fishery would be to close major subsistence areas to commercial fishing and reduce the commercial harvest rate.

Sincerely,

Wesley W. Jones  
Fishery Biologist

**Alaska Independent Fishermen's  
Marketing Association**  
P.O. Box 60131  
Seattle, WA 98160  
Phone/Fax (206) 542-3930  
aifma1@seanet.com



November 19, 2012

ATTN: BOF COMMENTS  
Alaska Department of Fish and Game  
Boards Support Section  
PO Box 25526  
Juneau, Alaska 99802-5526

Dear Board of Fisheries Members:

The **Alaska Independent Fishermen's Marketing Association (AIFMA)** has reviewed the proposed regulatory changes related to the Bristol Bay area salmon fisheries. Following this cover letter are our comments and position that we would like for you to consider during the December 2012 meeting addressing these proposals.

We have addressed each proposal in the order they appear in the proposal packet. If our position changes prior to your deliberations on any proposal we will provide you with a written amendment to that proposal.

AIFMA represents permit holders who fish for salmon in Bristol Bay. Our mission is to protect the renewable salmon resource and promote economic sustainability for commercial salmon permit holders in Bristol Bay.

Thank you for the opportunity to provide comment on these proposals.

Sincerely,

A handwritten signature in cursive script that reads 'David Harsila'.

David Harsila  
President

REVIEW AND COMMENTS

ALASKA BOARD OF FISHERIES  
2012 PROPOSED REGULATORY CHANGES

BRISTOL BAY AREA  
SALMON FISHERIES

Submitted by:  
AIFMA (Alaska Independent Fishermen's Marketing Association)  
Post Office Box 60131  
Seattle, Washington 98160

November 19, 2012

**ALASKA BOARD OF FISHERIES  
BRISTOL BAY SALMON PROPOSALS REVIEW**

Proposals 1-14 – Neutral

Proposal 15 – Support

Set gillnet anchor gear left in the water at unregistered sites will continue to displace drift gillnet area.

Proposal 16 – Oppose:

This proposal may be inconsistent area-wide in Bristol Bay.

Proposal 17 – Neutral

Proposal 18 – Neutral

Proposal 19 – Oppose

This proposal may be inconsistent area-wide in Bristol Bay.

Proposal 20 – Neutral (See proposal 15 above.)

Proposal 21 – Neutral

Proposal 22 – Neutral

Proposal 23 – Neutral

Proposal 24 – Oppose

The harvestable surplus of salmon for the commercial fisheries of Bristol Bay is fully allocated between the drift gillnet and set gillnet gear groups.

Proposal 25 – Oppose

This proposal would create a Bristol Bay resident-exclusive fishery contrary to State law.

Proposal 26 – Neutral

Proposal 27 – Neutral

Proposal 28 – Neutral

Proposal 29 – Neutral

Proposal 30 – Neutral

Proposal 31 – Neutral

Proposals 32-35 – Oppose

### **Overcapitalization and Overharvest Capacity**

Bristol Bay is burdened with overharvest capacity and overcapitalization resulting in economic stress. Introducing a new class of vessel in Bristol Bay will exacerbate these conditions and destabilize the fishery. We do not recognize a compelling reason to repeal the 32-foot vessel length limit.

The CFEC published the *Bristol Bay Salmon Drift Gillnet Fishery Optimum Number Report* in 2004 documenting the overcapacity issue in Bristol Bay and recommended an optimum number range of 800-1,200 permits. **Reducing capacity** was recommended to maintain an economically healthy fishery.

Removing the length limit would benefit a few fishers, desiring larger-capacity boats and would allow longer vessels, with unlimited tonnage from other areas, to enter the Bristol Bay fishery. The result would be increased harvest capacity and capitalization in the fishery. Fishermen owning 32-foot vessels would be economically and negatively impacted by their vessels being devalued in the marketplace. Local communities would be devastated.

Today's 32-foot vessels are more than adequate to harvest and refrigerate the harvestable volume of salmon at this time. Today's Bristol Bay gillnetter has a beam of 15 feet, or more, compared to just 11 feet 25 years ago. This has resulted in a nearly doubling of cubic capacity. These vessels are capable of refrigerating 20,000 pounds of salmon, traveling at high speed with accommodations for four people. These vessels operate safely in shallow waters and are considered state-of-the-art gillnetters by the industry.

Our current management plan includes small special harvest areas where larger vessels would be unsuitable. Short duration fishing openings have diminished the need for higher capacity vessels.

### **Quality**

No document exists that demonstrates that the larger the vessel, the better the quality of fish. This notion is rhetorical at best. Currently, larger 32 foot vessels operating within the waters of Bristol Bay catch, handle, refrigerate and very adequately produce high quality salmon safely. All fishers are gaining access to ice to enhance quality and have an obligation to operate their vessel safely under all conditions to the best of their ability.

Harvesting salmon in Bristol Bay from longer, larger heavier vessels may result in a mixed bag, or perhaps, poorer quality than anticipated or hoped. Our fishery has been admonished for years for producing bruised, and otherwise damaged fish, due to excessive towing of the gillnet gear. Excessive towing results in too much strain and tension exerted on the salmon by the netting. Heavier, larger vessels would result in more tension and strain on gear and fish during normal fishing operations. Bruising and scale loss are associated with reduced values.

Bristol Bay is a highly specialized and unique area in Alaska and should not be compared to other areas regarding this issue. All vessels currently fishing in Bristol Bay are capable of chilling salmon.

Processing at sea strays far from the intent of a CFEC issued permit to drift gillnet in Bristol Bay for which the 32 foot rule is directed and therefore should not apply.

### **Safety**

The safety record regarding vessels in Bristol Bay is good. The majority of accidents at sea can be attributed to collisions and grounding. These occurrences would be increased, if longer, larger vessels with greater tonnage were allowed in Bristol Bay. Larger vessels would be of deeper draft and encounter a higher incidence of grounding. Potential collisions involving larger vessels will result in far more vessel damage and personal injuries.

### **Proposals 36-38: Support**

These proposals will allow the dual permit regulation to be more effective. The dual permit regulation has accomplished three goals and has been generally accepted in the Bristol Bay fishery. The goals are 1) continuing to keep local watershed fishermen on the water, who own a permit, 2) continue to reduce harvest capacity by removing gear from the water and 3) increasing proportional catch percentage by each boat as boat numbers decrease.

These proposals would allow one person to own and operate two Bristol Bay drift gillnet permits issued under the CFEC in accordance with the regulation 5 AAC 06.33 that allows two driftnet permit holders to operate an additional 50 fathoms of gear when used on one vessel.

Bristol Bay driftnet fishers, on average, have experienced a chronic decrease in economic value of their individual businesses, adjusted for inflation, over time. There is overharvesting capacity in Bristol Bay, see CFEC optimum number report 04-3N, October, 2004. During the 2011 season 1,435 vessels operated in Bristol Bay, whereas the report recommends that the optimum number of vessels fishing be between 800 and 1,200. Proposal 37, if adopted, will be the final step to allowing the fleet to adjust to the recommended optimum number.

Fishers operating in Bristol Bay will continue to struggle economically under the burden of overharvest capacity. The local region is impacted the most without alternative economic opportunities to help support the high costs of a fishing business in Bristol Bay. More local people will opt not to invest in the fishing business and more permits will leave the area. Excessive fishing competition will continue to drive costs up further impairing the sustainability of the fleet and rendering the fishery less efficient.

### **Improved Economics**

If proposal 37 is adopted, important economic, fishery and management improvements will be accomplished.

- The number of vessels in operation will more likely be reduced to the recommended number cited in the CFEC Optimum Number Study of 800-1200 permits. This important analysis by the CFEC revealed a critical economic balance point for the well being and sustainability for the commercial drift fleet in Bristol Bay. Generally speak-

ing, the balance sheet for fishing operations appears sustainable when a high price for salmon occurs or an excellent run of fish happens. During many off-years the balance sheet is not sustainable and fishers cannot make their payments or make a livable income. This proposed regulation will provide the help needed to improve the economic model for fishers in Bristol Bay for all seasons including the off-years.

- The improved economic profile and balance sheet for an individual operating a drift-net operation in Bristol Bay will more likely perform in accordance with lending institutions' qualifications. The watershed residents, along with others from the state of Alaska, will more likely have the confidence to invest in the fishery, if the ability to repay loan obligations is improved and fits a reasonable and established economic loan model. The number of permits held by local and Alaska State residents would likely increase with the combination of a favorable loan program and an improved balance sheet for fishing operations. The slice of the pie, so to speak, will be made slightly larger for the operating fleet and provide a turning point for the community and the Bristol Bay fisheries for the future as the boat numbers continue to decrease over time.

Please see CFEC Report 12-05N October 2012 that shows a steady increase of earnings between 2004 and 2011, or since the two permit law was put into effect. This report shows all three permit holder groups, Borough, Other Alaskan, and Non-resident with increased earnings from 2004-2011.

- The decrease in total number of vessels fishing will have additional benefits including, reduced costs from intense competition and improved safety on the water. A more orderly fishery may lower the cost of fisheries management, and reduce the cost of enforcement.

### **Improved Quality**

This proposal will significantly contribute to improved quality of salmon harvested from the waters of Bristol Bay. By achieving the CEFC optimum number range, the intense competition, "race for the fish", will be effectively diminished. Fisher's attention and work will be redirected to help themselves improve profits by focusing on increasing the quality of fish harvested that will then be available for higher value markets.

### **Everyone Benefits**

Fishers who choose not to invest in a second permit gain the advantages of reduced boats, gear and competition on the water, but do not bear the costs to achieve it. If there are disadvantages, they are outweighed by the individual economic gains that would be realized by individual fishers to improve and promote their businesses.

Those individuals, that currently own a permit and choose to become the second permit holder on someone else's vessel, will become far more valuable for this purpose in the future should this proposal become law.

Direct testimony from set gillnet fishers who currently utilize this law reflects a clear and positive effect for their fishing operations. The drift gillnet fishers should also be able to help themselves and their fishing businesses accordingly.

Proposal 39 – Neutral

Proposal 40 – Neutral

Proposal 41 – Oppose

The proposer arbitrarily ties the cause of the decline in watershed permit ownership to permit stacking. The decline began long before the two permit law was adopted, which in itself beckons for a different conclusion. The dual-permit law goes a long way to encourage watershed residents, who do own permits, to participate in the fishery. The distressed economics of the Bristol Bay fishery and the lack of alternate incomes are more likely the cause and effect that has resulted in watershed residents selling off permits.

Proposal 42 – Oppose

The proposer states that permit stacking law is the cause for declining catches for local Bristol Bay residents and is also the cause for the lack of capital for local residents to invest in the purchase of permits. Should the dual permit law be rescinded, 300-400 permits could be reintroduced on an additional 300-400 vessels with full complements of gear. This would be devastating to the fishermen's income in the region, dramatically increase the race for fish and otherwise send the Bristol Bay fishery into the dark ages. The illogic of the rationale used to rescind such an important law for Bristol Bay is essentially confusing and misleading for the reader.

Proposal 43 – Neutral

Proposals 44-54 – Support

These proposals elaborate many important reasons why permit stacking has worked well in the set gillnet fishery to enhance their businesses and achieve profitability. Rescinding this law will cause certain economic harm to those that have made an investment based on the permit stacking rule. Many local families owning set gillnet operations will be impacted.

Proposal 55 – Neutral

Proposal 56 – Oppose

This regulation has worked well to allow flexibility for fishermen during early fishing opportunities in lieu of the general district.

Proposal 57 – Neutral

Proposals 58-61 – Oppose

General district options did not achieve the targeted goals and have proved to be a source of consternation and problematic for local communities.

Proposal 62 – Neutral

Proposals 63-65 – Oppose

These proposals provide no new information that would be the basis for changes in the current allocation plan. Managing for escapement is not the function of the current allo-



cation plan. The current allocation plan works well and is the benchmark for Bristol Bay.

**Proposal 66 – Oppose**

The current allocation plan was adopted by the Board of Fish in 1997 and has become one of the critical features of the management of commercial fisheries in Bristol Bay. The law has benefited the fishery immeasurably and has allowed the two stakeholder groups to move forward in their respective businesses.

**Proposal 67 – Oppose**

ADF&G is more than capable of managing for catch and escapement.

**Proposal 68 – Oppose**

**Proposal 69 – Oppose**

**Proposal 70 – Neutral**

**Proposals 71-72 – Oppose**

Drift gillnetters should be included in these proposals.

**Proposal 73 – Oppose**

Without a catch allocation plan that applies to the NRSHA, reducing the complement of drift gillnet gear will result in a loss of fish for the drifters.

**Proposal 74 – Neutral**

**Proposal 75 – Oppose**

**Proposal 76 – Oppose**

**Proposal 77 – Oppose**

**Proposal 78 – Neutral**

**Proposal 79 – Support**

**Proposal 80 – Support**

**Proposals 81-82 – Support**

**Proposal 83 – Neutral**

**Proposal 84 – Neutral**

**Proposal 85 – Neutral**

**Proposal 86 – Neutral**

**Proposal 87 – Neutral**

November 19, 2012

BOF Comments  
Boards Support Section  
Alaska Department of Fish & Game  
P.O. box 115526  
Juneau, AK 99811-5526

Dear Members of the Board of Fisheries:

My name is Izetta Chambers and my family and I are involved in the commercial setnet salmon fishery in Bristol Bay. I seasonally manage our small family-owned fish processing business, Naknek Family Fisheries. Our company purchases the majority of our fishery products from Naknek beach set net fishermen.

I grew up in Naknek, where I started participating in the Bristol Bay fishery at the age of 9 years old. I currently reside in Dillingham, Alaska during the off-season. I submit this comment letter in response to several proposals before the Board of Fisheries for consideration at your December 2012 meeting in Naknek.

**Proposal 16: Support**

Allowing set gillnet gear to remain in place between fishing periods on consecutive tides alleviates the hassle of removing gear for only short periods of time. Currently, when there are small closures between tides, the gear would not be in the water anyway. Requiring the gear to be pulled between these short openers creates added work for set gillnet salmon harvesters, increases costs, and exacerbates fatigue among the fleet. It serves no biological management purpose to pull between during these short closures, and the regulations should be modified to allow the gear to remain between openers.

**Proposal 32, 33, 34, 35: Oppose**

The 32-foot limit on Bristol Bay drift vessels should remain. Increasing vessel length would only hasten the decline in local permit ownership, and would disenfranchise our local fishing fleet, many of which do not have the capital to invest in bigger boats.

**Proposal 55: Support**

This proposal bears a lot of merit, and allowing a setnet fishing operation with two set gillnet permits to fish 100 fathoms on a single site would provide more equity between set net and drift net fishermen. Currently, set gillnet harvesters are not afforded the same opportunity to maximize the potential of stacked permits. It will limit costs, and will increase the quality of the fishery product, as nets will not remain in the water as long if they are being picked at the same location. Running back and forth between two sites decreases the quality of the harvest because the nets are soaking in the water for a longer period of time.

**Proposal 63 (partial), 64, 65: Support**

I strongly support increasing the allocation in the Naknek/Kvichak District to 22%. Currently, a higher percentage of the setnet fleet consists of local watershed residents, compared to the drift fleet. Increasing the allocation percentage benefits local Alaskan residents, and contributes to a more economically viable Bristol Bay region. The current allocation is inadequate in the Naknek/Kvichak District and does not reflect the breakdown between drift and set net fishing fleets. This is because the allocation is based on outdated numbers, when there were more drift boats. The allocation serves no biological purpose and has been viewed by many in the set net fishing fleet as exacerbating the problem of "forgone harvest." If the allocation continues in its current form, it creates unnecessary hardship for local set net fishermen.

**Proposal 66: Support (If no increase)**

In the event that the allocation for the set gillnet fleet does not increase, I would support abolishing the allocation altogether. This would provide more flexibility in management of the resource by our area managers and eliminate the forgone harvest conundrum.

**Proposal 71, 72: Support**

I support the opening of the Naknek River Special Harvest Area (NRSHA) to set gillnet gear when the Naknek River escapement goal is met. There are currently very few available fishing locations available to new entrants to the Nakne set gillnet fishery. That is because many of the setnet sites are already leased. This proposal would ameliorate the forgone harvest of surplus salmon, while supporting local fishing families who are just getting into the setnet salmon fishery. My husband recently purchased a set net permit, but we are not able to capitalize on this investment fully, due to no available sites in the Naknek/Kvichak District.

Thank you for your consideration of my comments and I welcome questions in response to these comments at the upcoming Board of Fisheries meeting in Naknek. I would also like to personally thank the Alaska Board of Fisheries for deciding to hold their meeting in a coastal community. This makes participation in the public process much easier for local residents. It is terribly expensive for a Bristol Bay resident to travel to Anchorage for these meetings, and I am sure that there are many people who are extremely grateful for the opportunity to attend the meeting and to testify in person on proposals that are important to them.

Respectfully,



Izetta Chambers  
Bristol Bay resident, small business owner



## Southwest Alaska Municipal Conference

3300 Arctic Boulevard, Suite 203 Anchorage, AK 99503 p: 907.562.7380 www.swamc.org

Alaska Peninsula  
Aleutian Chain  
Bristol Bay  
Kodiak Island  
Pribilof Islands

November 19, 2012

Monica Wellard, Executive Director  
Alaska Board of Fisheries, ADF&G  
P.O. Box 115526; 1255 W. 8th Street  
Juneau, AK 99811-5526

Director Wellard:

The Southwest Alaska Municipal Conference (SWAMC) supports independent analysis of important decisions regarding allocation of Alaska's fisheries resources.

The Board of Fish will hear important testimony about allocative decisions regarding the State's Bristol Bay salmon resources at their December 2012 meeting in Naknek. These are complex decisions, where stakeholders on both sides of the issue will profess the importance of varying outcomes; the Board will be tasked with reaching a decision that affects these stakeholders' livelihoods, regardless of which decisions are made. We understand that the Commercial Fisheries Entry Commission is providing comments and analysis regarding this particular meeting, and we commend their efforts; however, we are concerned that *all* decisions are not receiving the proper degree of analysis in regards to the socioeconomic outcomes.

We refer you to the *Alaska Seafood Economic Strategies (2006)* document drafted for the Murkowski administration, under direction of Representative Alan Austerman, as Fisheries Policy Advisor. Priority Strategy 2 is stated here:

*2. Invest in the state's capacity to take proactive, consistent, and analytically based positions on what is in the best interests of Alaskans. This will require an independent body that conducts comprehensive socioeconomic and market analysis and draws on data and resources from across all state departments. Current analytical positions in the various state departments have neither the time nor breadth to address key fisheries issues. The most immediate needs for analytical support are in the NPFMC process and at the Board of Fisheries.*

The North Pacific Fisheries Management Council staff operates as such a policy making body, analyzing important decisions affecting Federal Fisheries and armed with independent analysis. Some Board of Fish decisions will have a dramatic affect on Alaskans livelihoods, and it is in this body's purview to ensure it is allocating resources for the best interest of Alaskans.

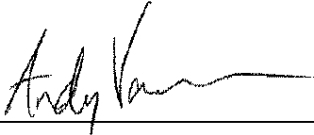
This letter does not support the outcome of any one decision regarding the Board's December 2012 meeting in Naknek, only to ensure the Board has the resources it needs to fully understand the socioeconomic implications of all allocative decisions.

In making this recommendation, SWAMC is joined by University of Alaska fisheries economist Gunnar Knapp. Thank you for hearing our concerns.

Board of Fish Comments: 3<sup>rd</sup> Part Analysis

Page 2 of 2

Sincerely,



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Andy Varner,  
SWAMC, Executive Director



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Gunnar Knapp  
ISER, Fisheries Economist

November 19, 2012

ATTN: Bristol Bay BOF Comments  
Boards Support Section  
Alaska Department of Fish and Game  
P.O. Box 115526  
Juneau, AK 99811-5526  
Fax: 907-465-6094

1. According to, SAAC 06.361. NUSHAGAK-MULCHATNA CHINOOK SALMON MANAGEMENT PLAN, The Department already has the ability to:
  - a. Reduce bag limit and possession limits
  - b. Reduce season limits
  - c. Prohibit the use of bait
  - d. A closure of the salmon sport fishery
2. The catch and release mortality rate was already factored into the allocation for Sport fishing when the NUSHAGAK – MULCHATNA CHINOOK SALMON MANAGEMENT PLAN was negotiated between sport fishermen and commercial fisherman. 4 Chinook Limit vs 5 Chinook in the unit.
3. The restriction of bait should not be used as an allocation issue. The Nushagak Chinook Salmon allocation is clearly outlined in the NUSHAGAK – MULCHATNA CHINOOK SALMON MANAGEMENT PLAN.
4. There is no evidence cited or data presented that supports the theory of single hook baits having a higher mortality rate than single hook lures.
5. High catch rates are associated with very large daily escapement. The volume of Chinooks can be so large that the 5 to 7 % mortality rate associated with a catch and release fishery does not have an impact.
6. The sport fishing industry needs every opportunity to catch fish. In dirty water without bait, which is common on the Nushagak River, we lose that opportunity.
7. The mortality rate associated with catch and release King Salmon fishing is less than the dropout rate in the commercial fishery when using sockeye gear. The kings get tangled in the gear and drown and when the net is being retrieved the net straightens out the kings go to the bottom of the bay.
8. Eliminating bait would affect all of the local Dillingham anglers who fish the Nushagak River. In most cases, the local community has limited access or opportunity to fish the Nushagak River for Kings. On days of low escapement their opportunity to harvest kings is greatly restricted or reduced without the use of bait. Most all of Dillingham anglers who sport fish use bait.
9. The Nushagak run of Kings come in waves. A large escapement one day can be followed by low escapement the following 3 days. The catch per unit effort drops off significantly on the down days. Eliminating bait would dramatically affect an angler's ability to catch kings on the low volume days.

10. The Nushagak River has the most prolific Chinook salmon fisheries in the world. It also has the least amount of sport fishing pressure when compared to other systems across the state or country. There is no justification outside the guidelines of the NUSHAGAK-MULCHATNA CHINOOK SALMON MANAGAGE PLAN to accept this proposal.

**Economic Impact:**

I am a life long Alaskan. I own private property on the lower Nushagak River and operate a business called Nushagak River Adventures. I employ 7 to 10 staff. Not only myself and my staff but many business that we work with will also be affected from local air taxi's, local boat supply, local lumber, local fuel, local barge, local food and beverage,

I have participated in the success of so many of these businesses during the last 7 years. A restriction like no bait will significantly impact the number of return clients and that affects many.

**Conservation:**

In general fishing guides are conservation minded. We do not get paid per fish but maintaining a quality fishery. This is in extreme contrast to the BSAI Pollock fishery that discarded for waste over 450,000 chinook salmon during the last 10 years. ( See attached chart from NOAA)

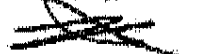
The Nushagak Committee was presented an argument that from a Kenai River study of released fish mortality that the Nushagak mortality from catch and release fishing would be around 3,000 fish. But these two rivers are not equal. I have guided both of these rivers and the Kings released on the Kenai River can be in the 50, 60, 70 and even 80 lb range. The body size of Kenai River King Salmon is on the upper end of the range for Kings but the Nushagak body size is on the lower size of the range making it easier and quicker to release these fish unharmed. Also the Nushagak River does not have the water quality issues like the Kenai from being near a large population center producing massive boat traffic and oil contamination to add additional stressors to those King Salmon.

**Personal Opinion:**

I believe that the Nushagak River is a very healthy run The Nushagak River is one of the most heavily enforced river in all of Alaska

The evidence is not there that the Sport Fishing industry is hurting the King returns. There are guidelines in place to restrict the retention of fish and possible closure if the river does not meet its escapement numbers. Low returns means no retention but big numbers does not give us additional retention. Our retained portion of the King run is small and the economic impact is high. I understand that the Pollock industry is a massive billion dollar market but the killing and discarding of over 450,000 King Salmon is a much larger problem, not the use of bait by a limited number of fisherman on the Nushagak River.

Sincerely,



Brad Giroux

4900 Virgo Ave  
Anchorage, AK 99516

**Table 1. Chinook salmon mortality in BSAI groundfish fisheries (including pollock)**

| Year | Annual   | Annual      | Annual   | A season | B season    | A season    | B season | A season    | B season |
|------|----------|-------------|----------|----------|-------------|-------------|----------|-------------|----------|
|      | with CDQ | without CDQ | CDQ only | With CDQ | Without CDQ | Without CDQ | CDQ only | Without CDQ | CDQ only |
| 1991 | na       | 48,880      | na       | na       | na          | 46,392      | 2,488    | na          | na       |
| 1992 | 41,955   | na          | na       | 31,419   | 10,536      | na          | na       | na          | na       |
| 1993 | 46,014   | na          | na       | 24,688   | 21,326      | na          | na       | na          | na       |
| 1994 | 43,821   | 40,635      | 3,186    | 38,921   | 4,900       | 36,699      | 3,936    | 2,223       | 983      |
| 1995 | 23,436   | 21,430      | 2,006    | 18,939   | 4,497       | 18,284      | 3,148    | 655         | 1,361    |
| 1996 | 63,205   | 60,902      | 2,402    | 43,319   | 19,888      | 42,026      | 16,774   | 1,289       | 1,114    |
| 1997 | 60,630   | 48,050      | 2,481    | 16,401   | 34,129      | 14,905      | 33,144   | 1,496       | 985      |
| 1998 | 55,431   | 50,313      | 5,118    | 18,930   | 36,501      | 17,991      | 32,322   | 939         | 4,179    |
| 1999 | 14,599   | 12,937      | 1,662    | 8,794    | 5,805       | 8,205       | 4,732    | 569         | 1,073    |
| 2000 | 8,223    | 7,474       | 749      | 6,568    | 1,655       | 6,138       | 1,336    | 430         | 319      |
| 2001 | 40,547   | 37,986      | 2,561    | 24,871   | 15,676      | 23,093      | 14,893   | 1,778       | 783      |
| 2002 | 39,684   | 37,661      | 2,103    | 26,277   | 13,407      | 24,859      | 12,722   | 1,418       | 685      |
| 2003 | 53,571   | 50,858      | 2,713    | 40,044   | 13,527      | 38,249      | 12,609   | 1,795       | 919      |
| 2004 | 58,984   | 56,957      | 3,007    | 30,716   | 29,248      | 29,587      | 27,370   | 1,129       | 1,878    |
| 2005 | 74,266   | 72,228      | 2,040    | 33,633   | 40,632      | 32,334      | 39,891   | 1,299       | 741      |
| 2006 | 87,084   | 85,290      | 1,794    | 62,582   | 24,502      | 60,974      | 24,318   | 1,608       | 186      |
| 2007 | 129,668  | 123,903     | 5,666    | 77,119   | 52,450      | 74,003      | 49,900   | 3,116       | 2,550    |
| 2008 | 24,105   | 23,387      | 718      | 18,996   | 5,109       | 19,391      | 4,996    | 605         | 413      |
| 2009 | 13,796   | 13,293      | 503      | 11,010   | 2,786       | 10,596      | 2,697    | 414         | 89       |
| 2010 | 12,383   | 12,048      | 335      | 9,468    | 2,917       | 9,131       | 2,917    | 335         | 0        |
| 2011 | 26,671   | 26,907      | 764      | 7,661    | 19,020      | 7,221       | 18,686   | 430         | 334      |
| 2012 | 12,765   | 12,416      | 349      | 8,995    | 3,770       | 8,651       | 3,765    | 344         | 5        |

**Table 2. Chinook salmon mortality in BSAI pollock directed fisheries.**

| Year | Annual   | Annual      | Annual   | A season | B season    | A season    | B season | A season    | B season |
|------|----------|-------------|----------|----------|-------------|-------------|----------|-------------|----------|
|      | with CDQ | without CDQ | CDQ only | With CDQ | Without CDQ | Without CDQ | CDQ only | Without CDQ | CDQ only |
| 1991 | na       | 40,306      | na       | na       | na          | 38,791      | 2,114    | na          | na       |
| 1992 | 35,950   | na          | na       | 25,891   | 10,259      | na          | na       | na          | na       |
| 1993 | 38,616   | na          | na       | 17,264   | 21,252      | na          | na       | na          | na       |
| 1994 | 33,136   | 30,593      | 2,543    | 28,451   | 4,686       | 26,871      | 3,722    | 1,580       | 963      |
| 1995 | 14,984   | 12,978      | 2,006    | 10,579   | 4,405       | 9,924       | 3,063    | 655         | 1,361    |
| 1996 | 55,623   | 53,220      | 2,402    | 36,088   | 19,554      | 34,780      | 18,441   | 1,289       | 1,114    |
| 1997 | 44,909   | 42,437      | 2,472    | 10,935   | 33,973      | 9,449       | 32,989   | 1,487       | 985      |
| 1998 | 51,322   | 48,205      | 5,118    | 15,193   | 36,130      | 14,253      | 31,961   | 939         | 4,179    |
| 1999 | 11,978   | 10,381      | 1,597    | 6,362    | 5,627       | 5,768       | 4,614    | 504         | 1,013    |
| 2000 | 4,981    | 4,242       | 719      | 3,422    | 1,539       | 2,992       | 1,250    | 430         | 289      |
| 2001 | 33,444   | 30,937      | 2,507    | 18,484   | 14,961      | 18,711      | 14,227   | 1,773       | 734      |
| 2002 | 34,495   | 32,402      | 2,093    | 21,764   | 12,701      | 20,378      | 12,024   | 1,418       | 877      |
| 2003 | 45,586   | 43,021      | 2,565    | 32,809   | 12,977      | 30,916      | 12,105   | 1,693       | 872      |
| 2004 | 51,696   | 49,733      | 2,963    | 23,093   | 28,603      | 21,964      | 26,769   | 1,129       | 1,834    |
| 2005 | 67,362   | 65,445      | 1,916    | 27,331   | 40,030      | 26,032      | 39,413   | 1,299       | 817      |
| 2006 | 82,695   | 80,664      | 1,741    | 58,391   | 24,304      | 56,806      | 24,149   | 1,585       | 158      |
| 2007 | 121,770  | 116,128     | 5,642    | 69,420   | 62,350      | 66,307      | 48,821   | 3,113       | 2,529    |
| 2008 | 21,480   | 20,839      | 641      | 16,636   | 4,842       | 16,033      | 4,808    | 505         | 36       |
| 2009 | 12,389   | 11,922      | 447      | 9,711    | 2,668       | 9,353       | 2,569    | 359         | 89       |
| 2010 | 9,697    | 9,362       | 335      | 7,630    | 2,067       | 7,295       | 2,067    | 335         | 0        |
| 2011 | 25,499   | 24,735      | 764      | 7,187    | 18,362      | 6,707       | 18,028   | 430         | 334      |
| 2012 | 11,350   | 11,001      | 349      | 7,773    | 3,577       | 7,429       | 3,672    | 344         | 5        |

Notes: Updated 11/9/12

Starting in 2011, the sampling method for salmon in BS pollock directed fisheries changed to census counts

Non-CDQ data for 1991-2002 from blend program database (bsahlx.dbf)

Non-CDQ data for 2003-2010 from Catch Accounting System database (akfish\_v\_gg\_pscdq\_estimate)

Non-CDQ data for 2011-2012 from Catch Accounting System database (akfish\_v\_gg\_bxn\_primary\_psc)

CDQ data for 1992-1997 from blend program database (bsahlx.dbf)

CDQ data for 1998 from blend program database (bsahlx.dbf)

CDQ data for 1999-2007 from CDQ catch report database (akfish\_v\_cdq\_catch\_report\_total\_catch)

CDQ data for 2008-2010 from Catch Accounting System database (akfish\_v\_gg\_pscdq\_estimate\_cdq)

CDQ data for 2011-2012 from Catch Accounting System database (akfish\_v\_gg\_bxn\_primary\_psc)

A season - January 1 to June 10

B season - June 11 to December 31

For specific pollock season data by year see <http://www.stuski fisheries.noaa.gov/data/statelife/fisheries/plockeas.pdf>



FAX TO: BOF  
907-465-6094

Gust Tunguing Jr  
Koliganek, Alaska 99576

November 18, 2012

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

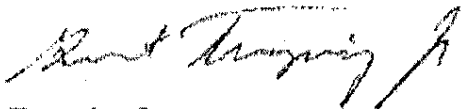
Dear Chairman Johnstone;

My name is Gust Tunguing Jr. I am a lifelong resident of Koliganek, Alaska. I have a drift permit and boat and have captained in Bristol Bay for 20 years.

My son, who has fished with me since he was 6 and now is 23, is applying for a loan thru BBEDC and if he gets a drift permit thru the BBEDC program, we will try to get another boat for him. But, if this doesn't work out, we will fish together with him as a D permit holder on my boat. Hopefully this will get enough money put away in a few years to have a down payment on purchasing another boat.

I think for us having the ability to have an extra 50 fathoms with both of us fishing together will make it more likely that he can pay off the permit loan and get money together for another boat.

Sincerely



Gust Tunguing Jr

Page 1 of 6

**Bristol Bay Board of Fisheries  
C/O Boards Support Section  
PO Box 115526  
Juneau, AK 99811  
Fax 907-465-4094**

**November 19, 2012**

**Members of the Board,**

**WHERE WE FISH** - Ekuk, Alaska - Ekuk is home to Nushagak Bay's second oldest, still operational salmon processing facility. Founded in 1903 as North Alaska Salmon Company the plant has remained in operation through the years under various owners. I think there was an interruption for World War II. Through most of the 60's 70's 80's and 90's the plant was owned and operated by the Brendal family as Columbia Wards Fisheries and then Wards Cove Packing. It was home to four can lines and a large freezer plant capable of freezing then around 400,000 lbs. of Headed & Gutted salmon per day. The fish were supplied from three source's they had a setnet fleet of about 80 permit holders at Ekuk Beach, these fish were pick and delivered to the plant by 4x4 pickup trucks. I believe this source of fish was the bread and butter of the company as it produced high volumes of fish and required no tender service. The second source was about 80 boats this fleet was comprised of about 75% local fisherman a good portion of which were from the villages of Manokotak, Togiak, New Stu, Ekwok and Portage Creek. The third source was the Igusik Beach Setnet fleet 60 to 70 permit holders which was tendered by landing craft style tenders. This fleet was made up almost entirely by individuals from Manokotak using small skiffs and four wheelers primarily.

In the late 90's and 2000 the large plant was brought to its knees. There were several major factors that crippled the plant, salmon values were at an all-time low, and returns to the Nushagak district were average but the ratio of salmon returning to the districts two main river systems had become a concern to the Department of Fish and Game as a result. ADF&G adopted the use of the Wood River Special Harvest Area which had been invented the year or two before to allow for the harvest of surplus Sockeye at the tail end of Red Season while protecting early Nushagak bound Coho and as a management tool used in season to protect Nushagak bound sockeye. In 1999 Wood River only openings occurred and in 2000 fishing went in early and stayed in leaving the Ekuk plant without a source of fish. The Truck fleet at Ekuk had no way to participate in the new management plan along with Igushik set netters. The local Wards Cove fleet had few captains that wished to attempt fishing in the very cut throat and competitive law breaking mess that was the Wood River fishery. There were boats high and dry on bars, lying on their sides spilling fuel out there breathers and most of the fleet shied away. Myself and others were told by the then plant superintendent Steve Skogmo that the plant was no longer viable with the extensive use of the Wood River Special Harvest Area, and decisions were made to close the plant.

As you can imagine this had a HUGE impact on the area's resident fishermen, not only had they fished for Wards Cove but the company managed many of the fisherman's personal finances. They took care of taxes, advanced money for heating oil and other essentials throughout the winter. They bought

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boats, trucks, nets, paid for net hangers, mechanics, engines, and transmissions, anything from the company store, meals, housing.... whatever was needed to keep you out of trouble and going in the fisheries. With that in mind it's not hard to understand the outsourcing of permits from the area. As these people became responsible for administering their own fishing businesses many of them failed the crash course and sold out. Now in 2012 there are only about 30 permit holders operating in Igushik. It took until the 2011 season for fleet in Igushik to get even close to adequate tender service.

As for happened at Ekuk, we had Yard Arm Knot come in and buy the plant in 2001. YAK tendered fish out of there all the way to Naknek for two years while they completely gutted the cannery portion of the plant and took whatever else they wanted leaving the plant in shambles. After this, the decision was made to donate the leftovers to charity. The Plant then fell into the hands of Jeremy Oliver. Oliver failed in his attempt to operate the plant in 2003. It was a big disaster costing the fisherman at Ekuk thier fish and their entire seasons. This disaster made State and National news, headlines reading: ROTTEN fish from Bristol Bay narrowly headed off from the market place by Alaska D.E.C officials. BIG MESS IN EKUK ALASKA. D.E.C. ended up burying the pack out behind the plant. The fisherman went in and cleaned up the MESS and winterized the plant as best they could, the plant was later bought in 2004 by Jerrald Ball a long time resident and businessman from the area, and he attracted Joe Kelso, the Managing partner and John Lawrance of Seattle, Washington. Together with Jerry's brother Newt, who was recently killed in a tragic plane accident. Together, they built up and operated Ekuk Fisheries for the last nine seasons.

The plant can now handle as much as 600,000 lbs of Head & Gutted product per day and has a fleet of trucks with between 97 and 103 setnet permit holders fishing for them on an average season. They have no Drift fleet, but have done some custom processing for Leadercreek in the past. They do this on a limited basis because on a good day the set net fleet plugs the processing capacity at Ekuk Fisheries.

**HOW WE FISH** - With very strong tidal current on much of Ekuk Beach, and mudflats on the rest, this coupled with direct exposure to the open bay makes conditions very difficult, and often unsafe to fish in with skiffs. As a result of this few people have a skiffs, and few people have the skillset for skiff fishing. Only eight or so out of the hundred permit holders have this capability. We use them in emergencies, or to haul fish out to tenders in the late season after the Ekuk plant is closed. I also use mine in the Wood River Special Harvest Area If I Have to, but ordinarily fishing has been carried out with use of a running lines to which the net is connected and then the net deployed by pulling on the running line with a truck. This can be accomplished with relative safety in nearly all weather, once the net has soaked for a time, it is pulled back in and the fish are picked, loaded into slush ice on the back of one of the trucks and delivered. Fishing has been conducted in this way since 4x4 trucks became reliable in the 1950's. I guess the ice is relatively new, we have been icing for the last nine years effectively.

I have fished Ekuk both ways, and can see why the old timers got rid of their skiffs long ago. I have kept a skiff for My operation for many years because I like to fall fish but most at Ekuk choose not to own one. Trucks are much more efficient. Not every outfit had their own truck in the old days, many pulled there nets by hand and the cannery truck would come by and pick their fish up before the tide, and before that fish were hauled with a dog cart. Now everyone has at least one truck per site. Sorry for the long history lesson but feel it's necessary information to understand where I'm coming from in my comments

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**WHO I AM** - My name is Lloyd Thomas O'Connor, 49. I'm a lifelong resident of Dillingham. I have fished Ekuk since I was 3 months old. I currently hold one of the communities elected Dillingham seats on the Nushagak Advisory Committee. I have three kids and one grand son, all who fish Ekuk with my wife and me. I also have two brothers who fish Ekuk with their families. My Uncle, Aunts, Cousins, all have sites on Ekuk beach. My 98 year old grandfather still fishes the site next to mine. Five generations of my family all fishing side by side, it's a Super Cool Place to fish. It's a similar story for other families as you go down the beach, and like my family, many of the other families have fishing history's that go back into the thirty's, some even earlier. Some of the families were year around residents of Ekuk, in the past I had Friends that attended school there. Many of these are large family style operations with an average of four people per site. In addition to my interest in Ekuk, my Son-in-law is a Drifter in the Nushagak along with the rest of his family. His father and brothers as well as his grandfather, he is a fourth generation fisherman.

**Proposals 58-59-60 & 61 GENERAL DISTRICT – OPPOSED**

So as you might expect I am opposed to any proposed changes that would increase the chances of a Wood River opening. We oppose all the proposals that would create a general district. First because there would be the probability of fish bound for the Nushagak River being harvested in such a district, the Nushagak River stocks run early and the strength of the Nushagak ESCAPEMENT determines whether we fish in or out of the Wood River. As a whole, Ekuk fishermen have no way to participate in the Wood River openings and if they are long-term then our processing plant will no longer be viable. It does not take too many days to take the profitability out of the season for the Ekuk processor. Secondly I oppose the general district Idea because there is absolutely no provision for setnetters of any kind to take part in it. In short I think it's a VERY BAD IDEA biologically and economically.

**Proposal 32-33-34-35 Vessel Length Increase – Opposed**

I am opposed to any change to the 32 foot limit. My son in law and I built up a 28 foot by 12 foot boat last winter in our shop behind the house. It has 24 holds and holds 16,000 lbs of slush iced fish. It has 20 feet of uncluttered workable deck space. This boat has plenty of capacity and is very capable with room for RSW if we choose it over ice in the future. There is a reason why Nascar has throttle body restrictor plates. They level the playing field, and make it easier for the teams with less money to be able to compete. In this case the teams with less money are the local fisherman, and the restrictor plate is the thirty two foot limit. **Please support the thirty two foot limit.**

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**OF NOTE** - I am opposed to any change that would get rid of the 48 hr transfer into the Nushagak. Though I would support the idea of making the Nushagak a semi exclusive destination similar to Togiak If you drop your card here you stay here till July 27.

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**Proposals 79, 80 – WRSWA separate gear openers – Opposed to as written - see amendment**

I oppose the two proposals that would split the gear types in the Wood River as they are written. However I would support the idea of splitting the Wood River Special Harvest Area into two parts, an upper and a lower section divided by the Muklung River and then alternating gear types drift in the bottom section, setnets up top then switch. I think this used in conjunction with a lottery system that would determine the occupants of the first ten setnet sites for each opener would get rid of most of the headaches for the troopers, and would make the Wood River a much safer, and more equitable place to fish.

**Proposal 83 – When the Nushagak District is closed and the WRSWA is open, allow set gillnet permit holders to remain in the Nushagak District with 25 fathoms of gear. – See Amendment below**

Of course I support the idea of doing something for the historically non-mobile setnet fleet at Ekuk so in the event of prolonged openings in the WRSWA we do not lose our processing company. However let's face it the WRSWA area is a huge bummer for most of the fisherman in the Nushagak. Most of us, Drifter and Setnetter alike, would do most anything to stay out of there and never ever have to go in. I think a good alternative to this proposal would be an added tool for Department allowing for the reduction of gear size to 4 ¾ inches. This would serve to target the smaller Wood River bound fish and allow greater opportunity for the larger Nushagak bound fish to get by. This would begin working to correct the imbalance in the Nushagak and Wood River runs while still fishing in the main district and would save the use of the WRSWA as a last resort, I believe this is a much more equitable and sustainable solution to the problem.

**Proposal's 36, 37, - Allow a person to own and operate two Drift permits in one name- OPPOSED**

I'm opposed to the concept of drifters having the ability to stack two drift permits in the name of one individual. I believe this would serve to drive up the price of permits and would more importantly serve to empower teams with more money. I think it would also remove some of the opportunity for a permit holder that does not have a boat. Let's say my boy could buy a permit, say with the help of BBEDC and then jump on a boat as a D permit it could serve as a stepping stone for him before he was ready to get his own boat. If one could own two permits then the market for hiring a permit holder would be reduced.

**Proposal's 41, 42 Disallow permit stacking for Drift boats in Bristol Bay – Oppose**

As written by my Son in Law, I support his opinion as my own.

We currently utilize the dual as it was intended, and would like to maintain this option in the future. When the run diminishes at the end of the season and it no longer becomes economical to pay crew, we have condensed our families' fleet down. The typical situation is having two permit holders who previously fished their own boats to join and fish from one boat as a dual operation. This cuts

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costs, is effective and safe when catch is low. Fuel costs are high and when the run is on the tail end or we are fall fishing for Pinks or Coho, the only way it makes sense is for us to fish together, split expenses, while utilizing both permits.

The other reason we currently support the Dual system is that we want our children to be able to enter in the fishery and when permits are affordable we would like to buy one for our daughter, but the only way for this to work is if we can teach her to fish it while being able to make the payment.

The dual also allows for someone who currently owns a permit to be able to fish even if they cannot afford a full complement of gear, it benefits the captain of the vessel utilizing the permit and the owner of the permit. We understand that many have been "leasing" emergency medical transfers in order to pad their boats with gear; but this does not impact us enough to make us want the system eliminated.

Another concern of mine would be that if Dual's are eliminated it would allow all these permits currently fished as duals their own compliments of gear, essentially putting more gear into the water.

**Proposal's 74, 78 – SEE NOTE**

I sat on the Nushagak Advisory Sub-committee assigned to review proposals 74 and 78 with the Department for and these are my opinions and observations from that meeting.

**Proposal # 74 - Bendix to Didson Nushagak Sonar King Salmon escapement – Support**

I support the Department proposal to adjust the KING SALMON escapement goals on the Nushagak River to better reflect the efficiency of the new sonar equipment. This seemed to be a mostly straight forward housekeeping to me. They have already been doing the conversion in 2010-2011 and 2012.

**Proposal # 78 – Revise Sockeye Salmon Escapement Reference Points - OPPOSE**

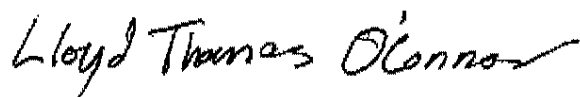
I DO NOT support the Department's proposal to change the escapement goals for SOCKEYE on the Nushagak River as written. FIRST OF ALL DEPT'S JUSTIFICATION INFORMAION IS NOT EVEN FULLY OUT! It is my opinion that the one million trigger number for the O.E.G. needs to reflect the new sonar inputs for forecasting. So the trigger number needs to go up as well. I Question the added escapement values for brood table analysis. The B.E.G. number goes from 340,000 to 400,000 But only about 11% or 37,400 of that is from the conversion to the new equipment so roughly 377,400 ends up being the adjusted number for equipment, so on top of that is the 22,600 that is added on as recommended increase in the escapement goal. First these additions are not mentioned in the proposal, and second the escapement goal recommendations that the Department put out for the other rivers, NONE of which have sonar counting systems, and seems sort of random to me. Add 100,000 to the Wood 700 to 800 thousand, add 100,000 to Naknek 800 to 900 thousand, add 100,000 to the Egegik 800 to 900 thousand, and once again add 100,000 to the Ugashik WHICH ONLY HAD A 500,000 goal to start with up to 600,000 all seems very random.

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Then we asked how the recommendation came about, we were told they are a result of a seven year study of fifty years of data coming from the genetics of the scale samples taken from the commercial harvests and counting towers used to make adjustments to the brood tables. One would think the result of a long term study of the brood tables would produce some more refined information reflecting the individual Rivers escapement goals. Not just throw another hundred thousand on top. I have a lot of Faith in our A.D.F.&G. area manager Tim Sands and as Tim pointed out adding a 100,000 to the Wood may not be a bad idea it would serve to further cushion the Nushagak when trying to balance the ratios between the two rivers. In hind sight I think this would have worked well over the last ten years.

I think tying any escapement increases to the year's forecasted return might be the best idea as I think we may be headed for some lean years, with the cold ocean conditions we seem to be stuck with for a while. So Back to the Proposal #78, My recommendation is, adjust the escapement up the 11% or so for the new sonar equipment across the board so the O.E.G. would go up from 235,000 to between 258,000 and 260,000. It's not a lineal conversion so I think when you get to the lower end of the range at 235,000 the conversion is a little less than 11% these are rough estimates but close enough to explain my concerns, then adjust the forecast trigger number on the O.E.G. up from the 1,000,000 up accordingly. I'm Very apprehensive of adding anything more to the minimum Nushagak escapement goals as it would increase the chance of a Wood River only opening. 22,600 sockeye is a couple of days' worth of decent escapement when we're fishing in district isn't it? **Please proceed with extreme caution when considering adjusting escapement goals, this could be a very long term (at least 10 to 15 years) and very Very VERY expensive EXPERIMENT.** Maybe the Department staff would like to bet their retirement on the success of this experiment. If not maybe responsible research staff should reconsider risking mine and my family's economic futures.

Thank you for your time and consideration,



Lloyd Thomas O'Connor

Lifelong Ekuk Setnetter

FAX IN: 907-465-6094

*F/V Lucky Bear*  
Peter Andrew  
P.O. Box 1074  
Dillingham, AK 99576  
907-842-4392

11-19-12

Mr. Chairman, Board of fish members

I am a drift fisher of thirty plus years, born in Kankanak Hospital in Dillingham and raised in New Stuyahok on the Nushagak River. I now live here in Dillingham, work at Bristol Bay Native Association, and sit on the Boards of Directors of the Bristol Bay Native Corporation and Nushagak Electric and Telephone Cooperative.

I'd like to comment on a few Bristol Bay proposals that will affect our economy to the negative. If you notice proposals that hurt our region are not submitted by watershed residents? Salmon fishing is the biggest part of our region's economy.

I see a disaster in the making in the department's interest in increasing escapement goals. The Kvichak is the classic example of how putting more fish up the river does not result in more fish returning. The last 20 years tell that tale as foregone harvests have cost the industry tens of millions of dollars. Please keep escapements at their current levels.

**The 32' limit needs to stay in place.** I believe and know in my heart the most of all watershed residents will be unable to afford to buy or modify their boats. In all the years of fishing in the bay safety has never been an issue regarding the length of boat. The 32' limit is sufficient to prosecute the fishery. We have improved the quality of Bristol Bay's salmon with our slush bags and bleeding practices have seen the price of salmon more than double in recent years. Abandoning the 32' limit will not help watershed residents; quite the contrary.

**Please keep "permit stacking" status quo**

The intent of permit stacking was to help those fishers that were in trouble during times of very low prices and weak runs. There are still significant numbers of watershed residents that have lost boats or engines and are unable to recapitalize back into the fishery. Permit stacking allows those permit holders to participate in the fishery.

I do not support opening any version of the "General district."

Thank you, sincerely,

Peter Andrew



11/17/12  
Attn: BOF Comments  
Boards Support Section  
Alaska Department of Fish and Game  
P.O. Box 115526  
Juneau, AK 99811-5526  
Fax: (907) 465-6094

Re: Proposal Comments for Bristol Bay Finfish Meeting 2012.

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Dear Board Members,

We, Dylan and Sarah Braund, participate in a family setnet operation in the Nushagak District. We have submitted comments below. Thank you for your public service and consideration on these matters.

**Proposals 44-53 Repeal Sunset Clause  
SUPPORT**

- **We co-authored Proposal 54.**
- For your convenience, we have attached the original Restructuring proposal submitted to the Board for consideration during the 2009 BOF meeting (see end of document).
- We support this proposal for the following reasons:
  1. We have two sons, ages 2 and 5 who have grown up setnetting since they were infants. We would like to pass on our dual permits and the sites to our boys so that they can continue to participate in this lifestyle.
  2. Many family setnet operators whose children have moved on to other occupations would otherwise be forced to relinquish ownership rights.
  3. **Adaptability will enable the setnet fleet to better cope with future challenges.** Dual permit set gillnet operations allow setnet fishermen to be more adaptive and flexible to changing market and fishing conditions. This is especially important given the following detrimental economic conditions: steadily increasing food, fuel, ice, equipment, gear, fright and other operational costs; recent smaller returns of salmon, the possibility of more variability of future salmon runs due to ocean acidification and proposed industrial development in the region; and the occurrence of significant and continued processor consolidation in the Bay. In Sum, the fishery faces significant present and future economic challenges. Therefore, providing the set gillnet fleet with increased adaptability through passage of this proposal will help ensure these challenges can be addressed with successful outcomes.

4. **Product quality will be increased.** Increased profitability derived from fishing dual set gillnets allows more disposable income to invest in capital improvements that increase product quality. Operational efficiency derived from dual permit setnet operations enables fishing gear to be actively managed continuously resulting in more frequent picking, delivers, and therefore better quality harvest.
  5. **Direct Marketing enterprises are more viable.** A more consistent annual production afforded by dual nets provides a solid foundation from which an operation can vertically integrate. Dual nets enable a fisherman to project a reasonable annual harvest with greater certainty despite changing runs from year to year. This production floor is essential to: justify direct marketing capital, fixed costs, and variable costs; and build long-term direct marketing clientele and ensure that orders are met. Furthermore, expanded harvesting capacity enables a higher average daily catch during scratch fishing, thereby incentivizing fishermen to add "shoulders" to the fishing season, making Bristol Bay direct marketers more competitive with other fishermen around the state and on the West Coast who enjoy longer fishing seasons and therefore can guarantee direct marketing clients fresh product for a longer period of time. It is incumbent on us as fishermen to figure out innovative ways to improve the viability of our fishery. A production floor and efficient fishing operation are critical to building a viable direct marketing enterprise. This proposal addresses those issues.
  6. Removal of section 5AAC 06.331(u) will: make it more difficult to develop direct marketing enterprises; undermine existing direct marketing enterprises; reduce setnet operational efficiencies and profitability; make it more difficult for families to hold on to permits and sites they intend to pass on to their children who have been raised as fishermen but are not yet old enough to hold a permit; compel longtime setnetters, whose kids have grown up and pursued other interests, to transfer permits and sites over to crew to maintain their existing operation, or sell off a portion of their longtime family setnet operation; and create unnecessary administrative work and expense for setnetters, CFEC, and DNR Shore Fishery Division both: in the short-term due to a significant volume of transfer applications from dual permit holders; and in the long-term because most dual setnet permit holders will opt to transfer permits to family and crew which generally results in more permit and site transfer from year to year.
- This proposal adds additional language to subsection (u) intended to address inconsistencies in the regulations and aid in enforcement of the regulation by clarifying the original intent of the proposal – that a dual setnet permit holder shall fish the permits in the same manner as if they were held by two separate permit holders with no greater privileges or encumbrances. This language is intended to triumph any other conflicting regulations. This additional language addresses the issue of concern raised by the Department regarding 5AAC

06.370(l), *Registration and reregistration*, with regard to dual set gillnet operation.

**Proposal 17 – Address ambiguity in regulations pertaining to permit stacking.**  
**SUPPORT**

- The intent of the setnet permit stacking regulation was for the permits to be operated in exactly the same manner as if they were held by two separate individuals, with no greater privileges or encumbrances. In the absence of this explicit language, a few unanticipated inconsistencies in the regulations were discovered. This proposal addresses an unanticipated ambiguity in the regulations pertaining to the seaward operation of gillnets operated by dual set gillnet permit holders.

**Proposal 84 –dual setnet permits in Wood River**  
**SUPPORT**

- If the Wood River fishery continues to be employed as a desirable management tool by the Department and the Board removed the sunset provision pertaining to dual permit setnet holders this ambiguity in the regulation should be addressed. An unanticipated inconsistency in the regulations places an unanticipated encumbrance on dual setnet permit holders. The existing regulations prevent a dual permit holder from fishing both permits as if they were held by two separate individuals by restricting fishing in the Wood River Special Harvest Area. This proposal seeks to remove that unanticipated regulatory conflict.

**Proposals 21 and 22 – Additional Setnet marking requirements**  
**OPPOSE**

- Existing setnet marking requirements are more than adequate to ensure accountability of gear and an orderly fishery. The setnet identification markings are regularly checked by peace officers.
- Setnet fishermen identify their gear through signs, multiple buoy markings, indicating lights, nets, and multiple identification numbers on skiffs. Thus, identification of properly marked setnet gear is not an issue for enforcement or safety.
- Additional marking requirements do not benefit setnet fishermen.
- It would be difficult for many setnet operators to comply with this proposal. Examples include: setnet fishermen who operate 16ft lund skiffs who do not have space on their skiff for additional markings; setnet fishermen who fish large mudflats in small skiffs that necessitate utilization of small buoys, and setnet fishermen that place their sign on their site by walking through ¼ to 1 mile or more of knee deep mud who could not carry a larger sign.

**Proposal 15 – Proposed restriction on lawful operation of setnet gear.****OPPOSE**

- This proposal would make it illegal for setnet fishermen to comply with the Department of Natural Resources Shore Fishery lease application process wherein it requires new shore fishery lease applicants to stake an “unregistered” fishing area for the duration of the fishing season. Thus, this proposal would effectively preclude the entire setnet fishery from applying for a new set gillnet shore fishery lease.
- Setnet fishermen are legally authorized to fish areas of beach where no other fishermen hold a shore fishery lease. The lawful operation of set gillnet gear almost universally requires some type of permanent anchoring device at the fishing location. This proposal would prevent setnet fishermen from fishing open beach areas as has historically been practiced. Moreover, this proposal would put setnetters who do not hold shore fishery leases (often new entrants) at a competitive disadvantage or may even preclude access to the fishery.
- This proposal is highly allocative. Allocation among geartypes is already addressed in the respective allocation plans. All fishermen share a common concern for safety. Navigational concerns could be addressed through buoy color and maintenance.

**Proposal 25 – Coho troll fishery****OPPOSE**

- A new fishery would make it more difficult for existing operators to establish direct marketing efforts by allocating a portion of the fish to another gear-type.

**Proposal 30 – Transport of salmon through Snake River****SUPPORT**

- This proposal seeks to address a regulatory change that occurred during the last Board cycle that created a navigational hazard for fishermen that seek to transport fish out of the Igushik District. This proposal attempts to address the navigational concern while upholding the intent of the Board’s previous action – to prevent illegal fishing the Snake River section.

**Proposals 32-35– Lift 32 foot limit****OPPOSE**

- This proposal would profoundly impact small boat fishermen and local communities.

**Proposals 58 - 60 – General District****OPPOSE**

- An intercept fishery hurts small boat fishermen, setnetters, and the resource.

**Proposal 79 -80- Separate openings in the Wood River Special Harvest Area****OPPOSE**

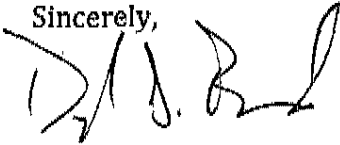
- The Department has maintained the position that biology takes precedence over allocation. Thus, this proposal is contrary to management intended to protect the resource. This proposal allocates fish while compromising the Department's ability maximize the harvest and ensure escapement into the Wood River is not exceeded.
- The issue in the Wood River is that seven sites on the East side of the River catch most of the fish unless a significant volume of fish passes through the River. This makes the fishery extremely inequitable among participants and even more so for the majority of setnetters who do not have the gear to participate. A more desirable option is to eliminate the Wood River Special Harvest Area from the management plan. Harvest from this area produces inferior quality fish, erodes stream banks, causes continual diesel slick in the water, compromises safety, and generally brings out the worst in the fishery.
- If the Board elects to adopt alternative openings in the Wood River Special Harvest Area we recommend the following changes for setnet openings in the Wood River Special Harvest Area:
  1. Change the minimum distance between setnets from 150 feet to 600 feet or even 900 feet (450 feet is not adequate to spread the fish). This would enable a more equitable distribution of fish and partially address the issue where the first 7 Eastside sites catch all the fish.
  2. Allow setnet fishermen to fish seaward of other nets. A setnetter would be able to operate a setnet seaward of another setnet provided 150 feet seaward distance was maintained. If the drifters are not fishing, setnet fishermen should be given maximum opportunity to harvest fish. Allowing setnet fishermen to operate across the river would alleviate some competition for the front sites and make the gear type more efficient. A more efficient setnet fleet would maximize the harvest of surplus fish and enable the drift fleet return to the water sooner.
  3. Open setnet fishermen on holdover tides if there are separate openings and setnets are allowed to be operated seaward of other setnets.

**Proposal 83 - Allow setnetters to remain in Nushagak District with 25 fathoms.****Support if drift fishermen are afforded same opportunity.**

- Amend management plan to provide Department with authority to minimize drift and setnet gear as a means of conserving Nushagak bound sockeye while harvesting a portion of Wood River sockeye in the District. In lieu of Wood River openings department would have authority to restrict setnetters to 25 fathoms per permit and drifters to 75 fathoms per permit (gear could remain onboard). A gear restricted, district-wide fishery that benefits all Nushagak fishermen is more desirable than an in-river fishery that rewards a few aggressive fishermen. The Board should consider any management tool that can be granted to the Department that would prevent Wood River openings.

Thank you for your time and consideration on these matters.

Sincerely,



Dylan and Sarah Braund - Nushgak Setnetters  
Box 1898  
Homer, AK 99603

## Alaska Board of Fisheries – Restructuring Form

### 1) What regulatory area, fishery, and gear type does this restructuring proposal affect?

Bristol Bay, Salmon, Set Gillnet (S04T).

### 2) Please thoroughly explain your proposal.

#### Proposed Amendment to 5AAC 06.331 Gillnet specifications and operations.

This proposal asks the Board to exercise its authority under HB251 to allow a person to own and operate two Bristol Bay CFEC set gillnet permits in accordance with existing regulations and the proposed regulatory amendment. Presently, a fisherman may hold two permits, but can only fish one.

Multi-permit set gillnet operations are a common practice in Bristol Bay and the set gillnet fisheries throughout Alaska. If at one time the multi-permit model was utilized out of economic greed, it is now used out of necessity.

Annually increasing operating costs, inflation, and a stagnant gross income derived from Bristol Bay set gillnetting are marginalizing the set gillnet fleet. The ten year average annual per permit gross earnings for Bristol Bay set gillnet is \$17,596 (CFEC Basic Information Tables 1999-2008). Single permit operations are generally not economically viable under current market conditions. This problem is further compounded by the increasing need to purchase icing-related infrastructure. Additionally, niche marketing is not a feasible alternative for many single permit operators. Annual catches resulting from a single set gillnet are highly variable. Unpredictable production coupled to a remote fishery undermines building an effective direct marketing business plan.

Consequently, many set gillnet fishermen have sought to increase their production and minimize their operating costs by adding permits to their existing operations. Technological improvements in the set gillnet fishery (i.e. larger skiffs/trucks, hydraulics, heavier nets/equipment) combined with additional permits have enabled many set gillnet fisherman to maintain a profitable business and offer competitive wages to crewmembers despite an adverse economic climate. Unless run sizes dramatically increase, the grounds price substantially improves, or operating costs significantly decline, the only economically viable option available to set gillnet fisherman is to fish multiple permits.

Unfortunately, the current regulatory scheme does not promote this multi-permit business model. Existing multi-permit operations and young fisherman seeking to establish an economically viable set gillnet operation have been faced with a similar tough choice: downsize and marginalization; or purchase permits and shore fishery leases and transfer those vested interests to family members or crewmembers, thereby relinquishing all ownership rights. Under the current regulatory structure, the set gillnet operation with the largest family has a distinct advantage over other fishermen.

This proposal asks the Board to remove a regulatory hurdle that currently makes it more difficult for existing fishermen to develop or maintain a profitable business model by fishing multiple set gillnet permits. This proposal will not authorize additional gear into the fishery.

Specific questions to be addressed under this section:

#### a. Will this proposal require initial harvester qualification for eligibility? If so, how would it work?

The only criteria is the fisherman must hold two CFEC Bristol Bay set gillnet permits.

**b. Are there new harvesting allocations? If so, how are they determined?**

No. The Bristol Bay Commercial Set and Drift Gillnet Sockeye Salmon Fisheries and Allocation Plan (5 AAC 06.355) still applies.

**c. What means, methods, and permitted fishing gear are proposed?**

No changes in the means, methods, and permitted fishing are proposed.

**d. Is a change in vessel length proposed?**

No.

**e. Are the transferability of permits or harvest privileges affected? If so, explain.**

No. Permits would still be transferred in accordance with CFEC guidelines. Harvest privileges (50 fathoms of gear in the aggregate per permit) would remain unaffected.

**f. Is there a defined role for processors? If so, please describe.**

No. There is not a defined role for processors. However, quality could be more efficiently monitored and tender coordination more efficiently implemented as multi-permit operations would be more formally recognized within the industry.

**g. Will this proposal be a permanent change to regulation? If not, for how long?**

Yes. This proposal would permanently amend existing regulations.

**h. If adopted, will your proposal require a change in monitoring and oversight by ADF&G?**

No. One permit holder would simply be required to fill a separate fishing district registration form ("green card") for each permit.

**i. Will vertical integration (e.g. harvesting and/or processing) or consolidation occur? Will limits be imposed?**

**Vertical Integration:**

Yes. Vertical integration will be an indirect result of this proposal. A horizontally integrated set gillnet operation can more accurately project a minimum annual average harvest. This increased predictability will provide an essential foundation from which an operation can vertically integrate to take advantage of value added processing and direct marketing niches. A set gillnet operation with more available capital to spend on product quality improvements will directly contribute to the overall marketability of Bristol Bay sockeye.

**Consolidation:**

Yes. Consolidation among set gillnet permit holders will occur. However, this effect will be limited in scope by three circumstances. First, consolidation within the set gillnet fleet has already occurred as a result of the low grounds prices since the late 1990's. Further consolidation will largely be



limited to utilization of dormant permits (CFEC Bit Tables – 2008: 131 unfished set gillnet permits). Second, the amount of profitable shore fishery leases is finite. Shore fishery leases in close proximity to existing operations are difficult to purchase. Finally, given the condensed run timing in Bristol Bay, there are practical constraints that limit how many permits can effectively be fished by a multi-permit set gillnet operation.

**Limits:**

No. The primary purpose of this proposal is to remove a regulatory impediment to multi-permit operations. Any limits would compel fisherman to resume existing practices that relinquish ownership rights to family and crew.

**j. How do you propose to monitor and evaluate the restructured fishery?**

A method of reviewing the effectiveness of the restructuring would be to monitor and evaluate the fair market value of permits and the amount of permit latency as an indicator of the fishery's economic health. Additionally, monitoring and evaluating the number of dual permits would provide information on the level of consolidation within the set gillnet fishery that is currently not available. Information of this nature could be derived from CFEC reports.

**k. Is there a conservation motivation behind the proposal? If so, please explain.**

No. There is not a direct conservation motivation intended by this proposal.

**l. What practical challenges need to be overcome to implementing your proposal, and how do you propose overcoming them?**

**Practical Challenges:**

The Board has authority to implement this proposal: given that legislation authorizing the regulation has been enacted by the Legislature and the Board has approved a similar regulation in the Kodiak set gillnet fishery. The key practical challenges include: a) attaining broad-based support among the permit holders in the Bristol Bay set gillnet fishery; b) attaining support from local advisory committees; and c) attaining support from other potentially interested stakeholders and communities in Bristol Bay.

**Implementation:**

The practical challenges facing this proposal can be overcome through a valid restructuring process that provides sufficient notice and opportunity for comment from interested stakeholders. After evaluating the economic, social, and political issues raised by this proposal a determination can be made whether the potential benefits to the Bristol Bay set gillnet fleet outweigh any negative ramifications of the proposal.

**3) What are the objectives of the proposal?**

- a. Increase the profitability of the Bristol Bay set gillnet fleet (owners and crew) by legitimizing the existing practices set gillnet fishermen have used to cope with an adverse economic climate.
- b. Remove the transactional difficulties and expenses inherent in managing a multi-permit set gillnet operation.

c. Remove the economic advantage large fishing families have over: families with young children who are not old enough to hold a permit, families whose kids have grown up and pursued other interests, and single owner/operators.

c. Secondary effects:

- i. Increased permit values
- ii. Activation of unused permits
- iii. More competitive crew pay
- iii. More predictable minimum annual harvest (i.e. foundation for building effective business model)
- iii. More disposable income to invest in product quality improvement

**4) How will this proposal meet the objectives in question #3?**

This proposal provides a regulatory mechanism that authorizes a set gillnet fisherman to run a dual-permit operation that does not rely on relinquishing ownership rights.

**5) Please identify the potential allocative impacts of your proposal. Is there an allocation or management plan that will be affected by this proposal?**

Latent set gillnet permits will probably become active. Thus, there will be a corresponding statistical reduction in the catch per unit effort of Bristol Bay set gillnet fleet. The Bristol Bay Commercial Set and Drift Gillnet Sockeye Salmon Fisheries and Allocation Plan (5 AAC 06.355) will remain unaltered so the impact on the drift fleet will be negligible.

**6) If the total value of the resource is expected to increase, who will benefit?**

All current Bristol Bay set gillnet permit holders will benefit from an increased fair market value of their permit. All single permit holders will be afforded the opportunity to horizontally integrate their existing operation. All multi-permit operations will benefit from the protection to their investments in additional permits, shore fishery leases, and equipment. Any further consolidation of permit ownership that occurs will result in more efficient, capitalized, vertically integrated, quality conscious set gillnet operations. Over time there will be a cumulative positive effect on ex-vessel prices as product quality improves.

**7) What will happen if your fishery is not restructured as your proposal recommends, and how is this proposal an improvement over current practices?**

Set gillnet fishermen will continue to rely on methods and means of permit consolidation not originally intended by the State's limited entry program. Large families will enjoy a competitive advantage over other permit holders. Essentially, the same group of fishermen who are similarly situated, other than the size of their family, will continue to be afforded differing opportunities for success under the current regulatory scheme.

**8) Considering the history of the commercial fishery, what are the potential short- and long-term positive and negative impacts on:**

a) the fishery resource;

- 1) **Biological** – No negative biological impact.

**2) Management system** – Catching power of the set gillnet fleet will be increased to the extent latent permits become utilized.

**3) Economic utilization** – A more efficient coordination of fishing effort and equipment will enable a more economically beneficial use of the resource.

**b) harvesters;**

**1) Economic Efficiency of the Harvesting Function:**

- i. The same number of fish will be harvested more efficiently and profitably.
- ii. The percentage of gross income attributed to overhead and operating costs will decrease.
- iii. Increased profitability of set gillnet operations will contribute to local economies.
- iv. Permit latency will be reduced.
- v. There will be lucrative and stable employment for crew.
- vi. Consolidation among remaining set gillnet fishermen will open new salmon markets, improve quality, and provide greater negotiating leverage. Consequently, more competitive buying and market access will materialize for all fishermen.

**2) Species Interdependence impacts** – No species interdependence impacts.

**3) Harvesting asset ownership impacts** – Permit latency will be reduced. There will be a reduction in the financial risk and administrative expenses associated with crew and family member transfers.

**4) Distribution of product value** – To the extent latent permits are utilized, the catch per unit effort will be statistically diminished.

**5) Market access** – Access to traditional salmon markets will remain unaffected. The opportunity for developing secondary markets will be improved.

**c) the sector, species, and regional interdependence relationships;**

**1) Gear types** – The set gillnet fleet will probably more effectively harvest their historical allocation percentage in some districts. Any potential impact to the drift fleet would be offset by additional fishing time granted by the Department to ensure allocations are met.

**2) Communities** – Without giving the set gillnet fleet the tools necessary to remain profitable, this component of the fishery will continue to provide lower than expected economic contributions to communities in the region.

**d) safety;**

The net effect to safety is negligible. Any reduction in safety due to fewer skiffs or trucks on the fishing grounds would be offset by the better equipped and maintained skiffs and trucks enabled by more capitalized operations.

**e) the market;**

**1) Market access and product form** – Market access will not significantly change or will improve. New product forms will probably be explored due to increased predictability of minimum annual harvest, more available capital, and greater certainty with regard to ownerships rights of an additional permit.

**2) Market timing** – Increased catching power will add “shoulders” to the season by enabling a dual permit holder to maintain a higher daily average for a greater duration.

**3) Competitive opportunities** – Increased quality and value of the resource would encourage more competitive buying and better market access.

**f) processors;**

**1) economic efficiency of the processing function** - To the extent enactment of this proposal improves quality, processors will have an improved product to market. Processor/fisherman coordination will be facilitated by fewer separate permit holders and the legitimizing of existing multi-permit operations.

**2) species interdependence impacts** – No species interdependence impacts.

**3) processing asset ownership impacts** – No processing ownership impacts.

**4) distribution of product value** - This proposal is not expected to affect processor distribution of value. Any reduction in production value resulting from direct marketing would be negligible given the overall size of the Bristol Bay harvest.

**5) market access** – The proposal will not reduce the number of permits authorized by CFEC so there is not any significant effect on processor access to product.

**g) local communities:**

**1) employment enhancement, displacement, and loss** – The proposal will result in fewer individual fishing operations. Some crew jobs may be lost due to the operational efficiencies of a dual permit operation. However, given there were 131 latent permits in 2008 (assuming 2 crewmembers per permit) 262 potential crew jobs were not realized. Consequently, any reduction in available crew jobs, resulting from consolidation, would be offset by the existing absence of potentially available jobs stemming from permit latency. Remaining operations will be more profitable. Remaining crew jobs will be more lucrative and secure.

**2) municipal revenue impacts** - A more profitable set gillnet fishery will contribute positively to municipal local revenue.

**3) industry infrastructure impacts** – Industry infrastructure is impacted to the extent that the proposal promotes profitable operations that justify further investment in infrastructure.

**4) species interdependence impacts** – No species interdependence impacts.

**5) ownership of local harvesting and processing impacts** – Presently, insolvent set gillnet operations resulting from poor market conditions and regulatory constraints is the predominant contributing factor to the erosion of local permit ownership.

Adoption of this proposal may have an effect on the retention of local ownership of CFEC set gillnet permits in the Bristol Bay region. The potential magnitude of this effect is uncertain given that multi-permit operations are already in existence and there were 131 latent set gillnet permits in 2008 (CFEC Basic Information Tables). An increased fair

market value of permit prices may encourage financially disadvantaged stakeholders (both local and non-local) to sell their permit.

This proposal is intended to increase the opportunity for participants in the set gillnet fishery to run a profitable fishing operation. The opportunity to run a dual permit operation would be available to both local and non-local permit holders. There are loan programs available to local residents for the purchase of limited entry permits through the Bristol Bay Economic Development Corporation, the State of Alaska Department of Revenue, and the Commercial Fisheries and Agriculture Bank.

It should be noted that this issue was not dispositive when the Board previously passed the Bristol Bay drift gillnet permit stacking proposal.

**6) gain or loss of associated businesses** – profitability would be increased through this proposal thereby contributing to the preservation of local businesses.

**9) What is your understanding of the level of support for your proposal among the harvesters, processors, and local communities?**

This proposal is an addendum to an existing restructuring proposal already submitted to the Board and considered under its Restructuring Committee. Sufficient notice and comment is necessary to determine whether there is broad support among harvesters, processors, and local communities. It will be particularly important to determine the level of support within the set gillnet fleet as this proposal provides it with direct benefits and has negligible impacts on other potential stakeholders.

**10) What are the potential short and long-term impacts on conservation and resource habitat?**

Impacts on conservation and resource habitat are negligible.

**11) What are the potential legal, fishery management, and enforcement implications if this proposal is adopted? What other governmental actions may need to be taken into account?**

This proposal has no legal, fishery management, and enforcement implications. The Board has authorized similar proposals for other fisheries and gear types. This proposal will simply allow a fisher to operate two permits under present regulations.

Submitted By: Name \_\_\_\_\_ (signature required)  
 Individual or Group Dylan Braund and Tom Rollman Jr.  
 Address 2409 Marilaine Dr. Anchorage, AK Zip Code 99517 Phone (907) 243-3668

November 19 2012

ATTN: Bristol Bay BOF Comments  
Boards Support Section  
Alaska Department of Fish and Game  
P.O. Box 115526  
Juneau, AK 99811-5526  
Fax: 907-465-6094

***PROPOSAL 239 – 5 AAC 67.022(g)(6). Special provisions for seasons, bag, possession, and size limits, and methods and means in the Bristol Bay Area.***

Members of the Board,

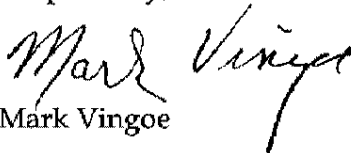
I am in **OPPOSITION** to Proposal 239 – 5 AAC 67.022 (g) (6) Special provisions for seasons, bag, possession, and size limits, and methods and means in the Bristol Bay Area for the following reasons:

1. According to, 5AAC 06.361. NUSHAGAK-MULCHATNA CHINOOK SALMON MANAGEMENT PLAN, The Department already has the ability to:
  - a. Reduce bag limit and possession limits
  - b. Reduce season limits
  - c. Prohibit the use of bait
  - d. A closure of the salmon sport fishery
2. The catch and release mortality rate was already factored into the allocation for Sport fishing when the NUSHAGAK - MULCHATNA CHINOOK SALMON MANAGEMENT PLAN was negotiated between sport fishermen and commercial fisherman.
3. The restriction of bait should not be used as an allocation issue. The Nushagak Chinook Salmon allocation is clearly outlined in the NUSHAGAK - MULCHATNA CHINOOK SALMON MANAGEMENT PLAN.
4. There is no evidence cited or data presented that supports the theory of single hook baits having a higher mortality rate than single hook lures.
5. High catch rates are associated with very large daily escapement. The volume of Chinooks can be so large that the 5 to 7 % mortality rate associated with a catch and release fishery does not have an impact.
6. The sport fishing industry needs every opportunity to catch fish. In dirty water without bait, which is common on the Nushagak River, we lose that opportunity.
7. The mortality rate associated with catch and release King Salmon fishing is less than the dropout rate in the commercial fishery when using sockeye gear. The

kings get tangled in the gear and drown and when the net is being retrieved the net straightens out the kings go to the bottom of the bay.

8. Eliminating bait would affect all of the local Dillingham anglers who fish the Nushagak River. In most cases, the local community has limited access or opportunity to fish the Nushagak River for Kings. On days of low escapement their opportunity to harvest kings is greatly restricted or reduced without the use of bait. Most all of Dillingham anglers who sport fish use bait.
9. The Nushagak run of Kings come in waves. A large escapement one day can be followed by low escapement the following 3 days. The catch per unit effort drops off significantly on the down days. Eliminating bait would dramatically affect an angler's ability to catch kings on the low volume days.
10. The Nushagak River has the most prolific Chinook salmon fisheries in the world. It also has the least amount of sport fishing pressure when compared to other systems across the state or country. There is no justification outside the guidelines of the NUSHAGAK-MULCHATNA CHINOON SALMON MANAGAGE PLAN to accept this proposal.
11. There is certainly the perception among a large segment of the population that fishing policies and regulations are designed to benefit the Commercial industry at the expense of those who use the resource for Sport or personal use. As an individual with no reason to incur a monetary gain in the Nushagak I do not condone the continued one-sided favoritism shown to our resources. It's time to end this and offer a balanced approach.

Respectfully,



Mark Vingoe

P.O. Box 4311

Palmer, Ak. 99645

P.S. I do own property on Lake Aleknagik and have personally fished in the area for the past 22 years.

**Alaska Board of Fisheries**

**Bristol Bay Finfish**

December 4-12,2012

**Comments for the Bristol Bay Proposals by Kim Rice**

**Bristol Bay Fisherman for 26 years**

**Proposal 57:** Stop the intercept of Bristol Bay Salmon in the North Peninsula by Area M Fishers. Put the North Peninsula Salmon Fleet in a Terminal Area around the Bear River. Do not allow an allocation of Bristol Bay Salmon to the North Peninsula Area M Fishers.

**Proposal 32-35:** No- 32 Feet is number.

**Proposal 36:** Yes

**Proposal 37-42:** No, Status Quo is working.

**Proposal 44-54:** Yes, Dual Permit for Setnet fishers is a good program, it is working as intended.

**Proposal 55:** No

**Proposal 82:** No

**Proposal 58:** No. Does not work. Mixed stock fishery should be allowed to be harvested in District of Origin.

**Proposal 59,60,61:** No. Setnet fishers and local Drift fishers rely on post July17 fish. Fish could be stopped at the milling areas North



and South of Egegik. If passed, the result would kill our chances of harvesting late run stocks in Egegik.

**Proposal 63-65:** I believe the Board of Fish should revisit the East side Setnet Allocation plan.

**Proposal 24:** No

**Proposal 25:** No

**Proposal 200:** No. It would be another intercept fishery.

**Proposal 204:** No. It would be another intercept fishery.

**Proposal 56:** Yes. I support the prior boat registration plan.

**Proposal 16:** No. All setnets should be pulled at closure.

**Proposal 18:** No.

**Proposal 19:** No. 1000 feet is the rule.

**Proposal 20:** No. Can fish anywhere a spot is open.

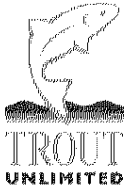
**Proposal 21:** No. Not needed.

**Proposal 22:** No. Not needed.

**Proposal 23:** No. Numbers needed by Troopers.

**Proposal 31:** No.

**Proposal 17:** Yes.



November 18<sup>th</sup>, 2012

**RE: Trout Unlimited's Alaska Program Supports BOF proposals 2, 3 and 4**

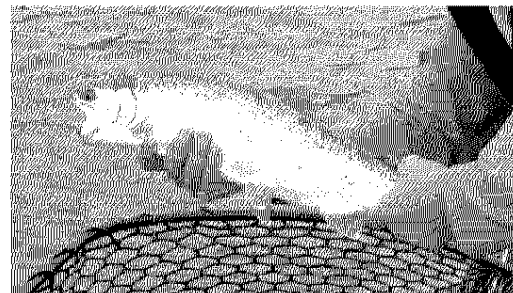
Dear Alaska Board of Fisheries Members,

We formally submit our support for the following Board of Fisheries proposals that will be considered this December during the Bristol Bay FinFish meeting in Naknek. These proposals support the long-term health of the world-class Bristol Bay rainbow trout fisheries and are important the high-quality recreational experience the thousands of anglers that come to the region to fish seek.

Anglers from around the world travel to Bristol Bay in pursuit one of the most sought after recreational angling experiences on earth. Bristol Bay's trophy rainbow trout, and abundant salmon form the cornerstone of a recreational economy valued at more than \$160 million each year.

Trout Unlimited ("TU") is a national conservation organization dedicated to the protection and restoration of coldwater fisheries and their habitats. Over 800 sportsmen and women in Alaska are TU members. These members, along with our Alaska staff and many other TU members who visit Alaska to fish, are committed to efforts to protect and restore Alaska's valuable coldwater fishery resources and Bristol Bay is a focus area for us.

**WE SUPPORT Proposal 2 - 5 AAC 67.022(g)(5).** Passing this proposal will protect the Nushagak River rainbow trout and clarify sportfishing regulations. We support this proposal unless it interferes with upstream subsistence users then we encourage the board to find a compromise that protects the fishery while ensuring a subsistence lifestyle can be maintained.



**WE SUPPORT Proposal 3 - 5 AAC 67.022(x).**

Minimizing impact on a fish is an important principal of catch and release fishing. Using barbless hooks is one way to minimize an angler's impact on a fish because it makes it easier to remove a hook from a fish and typically causes minimal damage to the mouth and jaw of the fish. Even minimal damage from hooks can cause long-term deformities that effect how the fish looks, its ability to eat and its survivability. For example, this Kenai River rainbow has a deformed jaw. While this likely influences its ability to eat, and therefor its growth; it also affects the quality of the

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*Trout Unlimited: America's Leading Coldwater Fisheries Conservation Organization*

Alaska Office: 419 Sixth Street, Suite 200 / Juneau, AK / 99801

(907) 586.2588 • Fax: (907) 463.3312 • [www.tu.org](http://www.tu.org)

angling experience (people don't pay big money to fish for deformed rainbows). Many fly anglers voluntarily use this method already...it is considered a standard in catch and release angling ethics. The more angling pressure that is placed on a river, the more important it is to take proactive measures to protect the health of fish that can be caught time after time. By mandating barbless hook use it ensures that the trophy rainbow trout fishery continues to thrive.

**WE SUPPORT Proposal 4 - 5 AAC 67.030.** Putting eggs, fish parts or other edible materials in the water with the intention of luring in fish, or "chumming", while sportfishing has been shown to increase mortality of caught fish. Fish tend to take an artificial lure, fly or egg more aggressively when accustomed to having an easy source of food nearby. This causes hooks to be swallowed more often, which increases injury and mortality. Allowing chumming in areas that have already banned bait also affects the quality of the angling experience. Most anglers who visit Bristol Bay are seeking a remote, wild, authentic fishing trip – and that experience is compromised if they see another user "chumming" for trout.

Trout Unlimited is committed to the long-term health of the Bristol Bay fisheries. The above proposals support a healthy fishery and important economic drivers of the region. If you have any questions about our comments or would like to talk further, please don't hesitate to contact us.

Respectfully,

Tim Bristol  
Trout Unlimited - Alaska Program Director

**Gunnar Knapp**  
Professor of Economics  
Institute of Social and Economic Research  
University of Alaska Anchorage  
3211 Providence Drive  
Anchorage, Alaska 99508  
907-786-7717  
[Gunnar.Knapp@uaa.alaska.edu](mailto:Gunnar.Knapp@uaa.alaska.edu)

November 19, 2012

To: Alaska Board of Fisheries  
By fax: 907-465-6094

From: Gunnar Knapp

Re: Brief comments relating to restructuring proposals to be considered at the Board of Fisheries Bristol Bay Finfish Meeting, December 4-12, Naknek, Alaska

I have been studying the economics of Bristol Bay salmon fisheries for many years. In particular I have been interested in two questions:

- How to increase the profitability and competitiveness of Bristol Bay salmon fisheries
- How to maintain fishery participation and benefits for local watershed residents

These questions are central to the issues raised by several of the proposals to be considered by the Board at its December 2012 Bristol Bay finfish meeting

Below are two brief comments relating to these proposals. I am neither supporting nor opposing any specific proposals. My purpose is rather to point out some issues I hope you will think about.

**1. There has been a continuing decline in the share of permits and earnings held by Bristol Bay watershed residents.** This decline is well documented in CFEC Report No. 12-02-N (*CFEC Permit Holdings, Harvest, and Estimated Gross Earnings by Resident Type in the Bristol Bay Salmon Gillnet Fisheries, 1975-2011*), page 6 and 10.

I personally find this decline highly troubling. Everything I hear suggests that rural Alaska, including the Bristol Bay region, is facing severe economic challenges deriving from a wide variety of factors such as high fuel costs and lack of employment opportunities. Finding ways to create economic opportunity in rural Alaska should be an urgent public priority.

One obvious way to create economic opportunity in the Bristol Bay region is to increase participation in the fishery—one of the richest fisheries in the United States. And yet we seem to be moving backwards rather than forwards in this respect.

Why is this relevant to the proposals under consideration by the Board? Because any regulatory change that allows new kinds of investments which make the fishery relatively more profitable for those able to make the investment will tend to cause a net transfer of permits over time from groups who are relatively less able to make the investment to those who are relatively more able to make the investment. Why? Because over time, markets tend to allocate assets—including fishing permits—to those who are able to earn the highest profits from them, and who will be able to bid the most for them whenever they are for sale.

Comparisons of the vessels used in the Bristol Bay fishery by residency of permit holders (Table below) suggests that Bristol Bay residents are relatively less able to make vessel investments than non-local residents. This in turn suggests that regulatory changes that allow new kinds of investments may tend to further increase this investment gap. This in turn could lead to additional net permit loss over time. I am not asserting that this would necessarily happen: I am only asserting that it is a real possibility.

**Comparison of Vessels Used in the Bristol Bay Drift Gillnet Fishery, by Residency of Permit Holder**

|  | Group                     | 1983 | 1988 | 1993 | 1998  | 2003  | 2008  |
|--|---------------------------|------|------|------|-------|-------|-------|
| Average age of vessels (years)                 | Bristol Bay Residents     | 9    | 11   | 14   | 18    | 22    | 26    |
|  | Other Alaska Residents    | 9    | 11   | 14   | 17    | 21    | 24    |
|  | Residents of Other States | 11   | 12   | 13   | 16    | 20    | 24    |
|  | Average                   | 10   | 11   | 14   | 17    | 21    | 25    |
| Average horsepower of vessels                  | Bristol Bay Residents     | 239  | 279  | 282  | 294   | 287   | 337   |
|  | Other Alaska Residents    | 243  | 271  | 315  | 345   | 350   | 373   |
|  | Residents of Other States | 252  | 286  | 335  | 368   | 372   | 382   |
|  | Average                   | 245  | 278  | 311  | 336   | 336   | 364   |
| Average displacement of vessels (gross tons)   | Bristol Bay Residents     | 10   | 12   | 12   | 12    | 12    | 12    |
|  | Other Alaska Residents    | 12   | 13   | 13   | 13    | 14    | 15    |
|  | Residents of Other States | 12   | 12   | 13   | 14    | 14    | 14    |
|  | Average                   | 11   | 12   | 13   | 13    | 13    | 14    |
| Average fuel capacity of vessels (gallons)     | Bristol Bay Residents     | 239  | 288  | 282  | 294   | 287   | 299   |
|  | Other Alaska Residents    | 306  | 334  | 364  | 357   | 357   | 360   |
|  | Residents of Other States | 283  | 311  | 348  | 352   | 350   | 364   |
|  | Average                   | 276  | 311  | 331  | 335   | 331   | 341   |
| Percent of vessels with refrigeration capacity | Bristol Bay Residents     | 0.5% | 0.5% | 2.3% | 4.5%  | 5.5%  | 7.7%  |
|  | Other Alaska Residents    | 1.3% | 2.3% | 7.5% | 13.7% | 15.3% | 20.8% |
|  | Residents of Other States | 0.5% | 2.0% | 8.1% | 15.5% | 17.8% | 22.2% |
|  | Average                   | 0.8% | 1.6% | 6.0% | 11.2% | 12.9% | 16.9% |

Northern Economics. 2009. The Importance of the Bristol Bay Salmon Fisheries to the Region and its Residents. Report prepared for the Bristol Bay Economic Development Corporation. 193 pages. Data are from tables on pages 136 and 137 of report. Based on data provided by the Commercial Fisheries Entry Commission.

Given this situation and the importance of the issue, it troubles me that the State has not undertaken more detailed economic analysis of this issue and of how the proposed regulatory changes might affect local permit ownership before considering significant regulatory changes. CFEC's comments in its memorandum of November 7 begin to address this issue—but not in the detail needed to fully inform the Board of Fisheries about the potential implications of the proposals.

**2. Be careful of regulatory changes which allow permit holders who make vessel upgrade investments to increase their catch share.** This may create an incentive for investments which are profitable only because they reduce other operations' catches and which reduce total net value of the fishery. CFEC, in its memorandum of November 9 regarding Proposals 32 through 35, alludes to this concern as a rationale for its opposition to these proposals. CFEC notes the potential for further increase in the total cost of harvesting without a commensurate increase in ex-vessel value. What concerns me is not only that the fleet as a whole may increase costs without commensurate increases in ex-vessel value, but also that permit holders who are unable to make the investments may lose catch share and value.

Note that I am neither supporting nor opposing Proposals 32 through 35. Rather, I am arguing that in considering these proposals you should consider the extent to which larger fishing vessels would or wouldn't gain a competitive fishing advantage allowing them to increase their catch share. I don't know enough to argue that they would or wouldn't gain such an advantage: my point is that you should ask and find out if they would.

The "best" regulation would allow for higher quality and price without giving the vessels a competitive fishing advantage; the "worst" would give vessels a competitive fishing advantage without actually resulting in higher quality and price.

Note, however, that even the "best" regulation would tend to result, over time, in net permit transfers to those groups most able to make additional investments.