Submitted By
John Peckham
Submitted On
12/28/2017 2:08:59 PM
Affiliation

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7825 South Tongass Hwy
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Mr. Chairman and Board Members,

I am opposed to Proposal 156.

I have purse seined in SE Alaska since 1975. I was present at the Board of Fisheries meeting at which 5AAC 33.366 was established and at the meeting at which 5AAC 33.363 was adopted.

Taken together, these regulations were an attempt to address the highly contentious issue of how much seining should be allowed in upper Chatham Strait and Icy Strait. The main concerns were that surplus pink salmon were going unharvested, that the effects of reduced seine access in the 70's and 80's had reallocated sockeye and chums from the seine fleet to the gillnet fleet, and that any increased seine harvesting, compared to that period, would negatively effect gillnet harvests (and returns) in districts 11 and 15.

The intent of 33.366 is clear when read in the context of 33.363. It is to manage the Hawk Inlet shoreline in July in a way that maximizes the available harvest of surplus northbound pink salmon while taking into account the conservation of other species, and to set a limit on the sockeye harvest in order to keep ADF&G from making allocative decisions. The cap itself was not intended for conservation.

A set cap, of course, is not very responsive to the strength of the returns, and to the extent 15000 wild stock sockeye is an allocation, then the yearly cap has resulted in the seine fleet under achieving its allocation. The seine harvest has averaged 6500. It would be better if a yearly cap, if necessary, would fluctuate, so that when pink salmon runs are strong a higher inseason cap would be applied. Currently, in some years, little or no pink or sockeye seine harvest occurs in district 12 above Pt. Marsden. I would suggest the regulation be modified so that a rolling ten-year average be applied to determine a yearly cap. This would allow for management that is more responsive to abundance and fairer.

The department already has the authority to manage any seine harvest for conservation. There is no evidence that sockeye timing over the long term has changed. There is no management reason to have further restrictions on the seine harvest. Such restrictions are part and parcel of proposal 156 and would result in some years in a substantial under harvest of surplus pink salmon and reallocation of sockeye and chums.

Therefore I am opposed to 156. For similar reasons reasons, I am opposed to proposals 157 and 158. The effect of these would further restrict seine harvests on the Hawk Inlet shoreline.

Submitted By
John Peckham
Submitted On
12/28/2017 4:09:23 PM
Affiliation

I oppose proposal 169. I have purse seined in Sotheast Alaska since 1975.

Distict 6D should not automatically be open at the same time as the other gillnet areas in district 6. It should not be open at all in August. 6D is a productive area used by the seine fleet in August when pink salmon abundance in district 6 is large enough to allow seine openings. Opening the area to gillnetting would effect pink mangement and would reallocate pink and other species from the seine fleet to the gillnet fleet. Gear conflicts would result when the area would be open to gillnetting at the same time as it is open to seining. ADF&G should comment on conservation if the intent is to have 6D open every time the rest of 6 is open in August.

The assertions made by the proposers are wrong. The gillnet fleet suffers no more time and area closures than the other fleets. In fact, the gillnet fleet has more consistent openings than the seine fleet. Substantial numbers of pink salmon travel through gillnet districts. If they were to target pink salmon more frequently they would catch more pink salmon.

Submitted By
John Ryan
Submitted On
12/28/2017 10:52:21 PM
Affiliation

PROPOSAL 56 Board of Fisheries, Please change the following regulation as stated: 5 AAC 32.150. Closed waters in Registration Area A. Close waters of Twelvemile Arm to commercial fishing for Dungeness crab, as follows: (11) waters of Twelve-mile Arm west of a line at 55'31.262'N lat., 132'34.141"W long, to 55"30.170'N lat., 132'33.731'W long., and north and east of a line at 55'26.410'N lat., 132'40.050'W long., to 55'26.333'N lat., 132'39.529'W long.; What is the issue you would like the board to address and why? The residents of Prince of Wales Island have continued to see an increased presence of commercial Dungeness crab fisherman in 12-mile arm. The commercial Dungeness crab fleet has seen an increased in sea otters in other areas of Southeast Alaska and very low numbers of Dungeness crab in those areas. The area of Hollis has seen an increase of personal use Dungeness crab fisherman from the communities on the western shore of Prince of Wales. The fisherman of Hollis continues to see lower numbers of crab from the increase of all users. A small increase to the area closed to taking Dungeness crab commercially will continue to allow a sustainable biomass to be harvested by personal use fisherman to supplement the high cost of living and depressed economy on Prince of Wales Island. The commercial Dungeness crab fleet would not be impacted by this small increase to the existing closed fishing area. The Hollis Community Council wrote this proposal for the best interests of the residents of Prince of Wales. I personally fish 12- mile arm and have seen the increase of commerical harvest over the last 8 years because of the increased presence of Sea Otters moving into other area of SE Alaska and decimating the crab stocks. This small increase to the proposal area will continue to allow all residents to enjoy this resource while not in direct competion with the commerical industry.

Submitted By
John Ryan
Submitted On
12/12/2017 12:28:22 PM
Affiliation

~~To: Board of Fisheries concerning SE and Yakutat Shellfish
Concerning: PROPOSAL 84

Please amend the following regulation to as stated:

5 AAC 31.136. Closed waters in Registration Area A.
Close additional waters in District 2 to commercial pot shrimp fishing, as follows:
(4) Shrimp may not be taken: in the waters of Kasaan Bay north and west of a line from the northern most tip of Daisy Island located at 55'28.816'N lat, 132'19.379"W long. northeast to a point on Kasaan Penisula located at 55'30.533'N lat, 132'18.191'W, including all waters of Twelve-mile Arm;

Reasoning: Over the years, District 2 commercial shrimp season has caused a continual downward tend to the shrimp biomass in the waters of Kasaan Bay and Twelve-mile arm to a point where the area can no longer support a commercial fishery.

Beginning with the 2009 ADF&G news release, the shrimp guideline harvest limit or otherwise known as the quota, was reduced from 86,000 pound to 65,000 pound of shrimp in District 2. ADF&G stated the reasoning for the reduction of quota was " due to excessive exploitation rates, declining CPUE, and a decrease in mean carapace length".

In the fall of 2010 commercial shrimp quota in District 2, the district was open for 33 days with a quota of 65,000 pounds of shrimp. A total of 68,893 pounds in total was harvested. In 2011, District 2 was opened again for a quota of 65,000 pounds. Commercial shrimp fishermen harvested 75,425 pounds of shrimp in 20 days. In 2012, the shrimp quota remained once again at 65,000 pounds even though the shrimp fishermen had gone excessively over the quota by 16% the previous year. Commercial shrimp fishermen harvested 74,631 pounds of shrimp in District 2 in 15 days. Once again the commercial fishermen went excessively over the quota by 15% in 15 days of fishing. ADF&G once again kept the 2013 shrimp quota at 65,000 pounds for District 2 even though the commercial shrimp fishermen went excessively over the quota the previous two years. Commercial fishermen harvested 62,250 pounds of shrimp in District 2 in 2013

Beginning in the fall of 2014, the commercial shrimp quota for District 2 was reduced to 52,000 pounds of shrimp. By emergency order, ADF&G closed the waters of Kassan Bay, Twelve-mile Arm, and Skowl Arm after 12 days into the open season. As quoted by the emergency order, "Kasaan Bay and Skowl Arm (Subdistrict 102-60) is being closed as a conservation measure to protect this localized shrimp stock from additional fishing pressure. Commercial harvest rates have been in decline over the past several years. The pre-season survey the department has conducted over the past four seasons has also shown a precipitous decline in the catch rates of spot shrimp as well as a decline in biological parameters". Commercial shrimp fishermen harvested 50,0826 pound of shrimp in District 2 in 2014 and were allowed to fish commerically for 12 days in an area of low biomass which ADF&G was concerned about.

ADF&G has not opened the waters of Kasaan Bay and Twelve-mile Arm since the 2014 shrimp season. District 2 has remained open for the harvest of shrimp with reduced quotas. The quota was set at 42,000 pounds in 2015, and further reduced to 30,000 pounds in 2016. In 2017, District 2 remained at a 30,000 pound quota.

ADF&G began a new pot gear survey in Kasaan Bay beginning pre-season in 2011. This survey has continually shown a sharp decline of the shrimp biomass. In the 2013 shrimp season, ADF&G began asking commercial shrimp fishermen to fill out logbooks of their catch.

The 2013 October commercial shrimp season for District 2 has left the personal use shrimpers with a low shrimp biomass in Kasaan Bay and Twelve-mile Arm. The shrimp biomass has been extremely slow to increase and has not recovered from the decimation. District 2 itself is a large area; however the commercial fishing fleet focused their efforts in the waters of Kasaan Bay and Twelve-mile Arm in 2013 which are adjacent to the communities of Hollis and Kasaan. Both areas were hard to navigate during the fishery from the large amount of commercial gear.

The area used to receive moderate personal use fishing pressure through-out the year from residents of Prince of Wales Island as well as Ketchikan. However, personal use fishermen numbers have declined rapidly because their catch effort compared to the return is very low. Prince of Wales has a large population of subsistence / personal use users who rely on the land and ocean to feed their families. The island has a high cost of living with a financially depressed economy.

This commercial closure of Kasaan Bay and Twelve-mile Arm is a small percentage of
District 2 which runs the eastern shores of Prince of Wales Island south of Narrow Point and north of the US/Canadian border. This area includes all waters of bays and sounds on Prince of Wales Island on the eastern shore, south of Narrow Point. The large commercial vessels can easily navigate these areas open to commercial shrimping and away from the communities of Hollis and Kasaan who rely on a subsistence lifestyle to exist. Commercial fishermen focus on making a profit along with commercial seafood processors/companies. They are not concerned if the rural resident personal use fisherman is harvesting enough shrimp to feed their family.

A regulation closure of the area to commercial shrimping would protect a relatively small
percentage of District 2 to allow personal use fishermen to utilize the shrimp resource. The area selected for the closure is in close proximity to the community of Hollis and village of Kasaan. Both places have harbors and boat launches which are utilized by all residents

of Prince of Wales Island with small vessels. Commercial vessels would still be able to fish District 2 in waters not directly adjacent to the communities of Hollis and Kasaan.

I am requiring the Board of Fisheries to enact this regulation change as wrote to protect the personal use shrimp fishery for the residents of Alaska. I feel it's the duty of the Board of Fisheries to protect the shrimp biomass of Kasaan Bay and Twelve-mile Arm for the residents of Alaska not for the continued betterment of the commercial enterprises.

To Board of Fisheries Members:

My Name is Josh Wisniewski I live in Sitka, Alaska, My Address is PO Box 474 Sitka, Alaska, 99835. I am a commercial fishing permit holder. I am also a cultural anthropologist and completed my Ph.D. in anthropology at the University of Alaska, Fairbanks. I been studying issues related to commercial and subsistence marine harvesting in Alaska and Washington State for over 12 years.

These comments are in support of the conservation of herring stocks in Sitka Sound to support long term sustainable harvest opportunities for all user groups I urge the BOF to **adopt** proposals:

98 Reduce Southeast Alaska commercial herring harvest rate	(Adopt)
99 Reduce maximum harvest rate from 20% to 10% of spawn biomass	(Adopt)
105 Expand waters closed to commercial herring fishing	(Adopt)
106 Expand waters closed to commercial herring fishing	(Adopt)

Concurrently I urge the BOF to **NOT** adopt proposals which would result in decreased opportunities for subsistence harvesting and increase the rate of commercial herring harvest levels.

94 Reduce amount of spawn necessary for subsistence	(Oppose)
104 Repeal waters closed to commercial harvest	(Oppose)
107 Establish Herring Spawn on kelp commercial fishery in Dist. 13	(Oppose)

1. Archeological and Cultural Context in Support of Herring Conservation

Human populations have been harvesting herring in Southeast Alaska for at least 9310-7930 years Before Present (BP) based on archeological materials collected from the Chuck Lake Site (45-c4g-237) on Hecate Island in Sea Otter Sound.[1] A bulk sample from the Jamestown Bay Site located in Sitka Sound also known as Site (49-SIT-228) was dated to 780 BP. Of the 199 fish bones recovered in this sample *57%* were herring. This data speaks to the deep economic and cultural importance of herring in Sitka Sound.

Traditional Ecological Knowledge (TEK) documentation has identified the active management and conservation of herring stocks in Sitka Sound throughout the Northwest Coast from Southeast Alaska to Washington State. Analysis of traditional ecological knowledge recorded in Sitka has been published in peer reviewed journals.[2] Those publications identified traditional Sitka Sound herring management practices that included habitat conservation (limiting disturbance of spawning areas) as well as the identification of protected embayment for habitat cultivation including placing hemlock boughs into the

[1] Thornton, Tom, et al, 2010 Herring Synthesis Documenting and Modeling Herring Spawning Area Within Socio-Ecological Systems over time in the Southeastern Gulf of Alaska NPRB Project 728.

[2] Thornton, T. F., and Kitka Sr., H. (2010). The Tlingit way of conservation: a matter of respect. In Walker Painemilla, K., Rylands, A. B., Woofter, A., and Hughes, C. (eds.), Indigenous Peoples and Conservation: From Rights to Resource Management. Conservation International, Arlington, pp. 211–218; Thornton,T.F.,& Kitka,H.(2015).An Indigenous Model of a Contested Pacific Herring Fishery in Sitka, Alaska. International Journal of Applied Geospatial Research (IJAGR) 6(1): 94–117; Thornton, T. F. (2012) Watersheds and marinescapes: understanding and maintaining cultural diversity among Southeast Alaska Natives. In Johnston,B. R., Hiwasaki, L.,Klaver, I. J., Castillo A. R., Strang V. (eds.),Water, Cultural Diversity, and Global Environmental Change, Springer, pp. 123–136;

substrate and transplantation of eggs and herring to new habitat settings to enhance local herring spawning areas.

A fundamental principle of traditional Tlingit marine resource management (that includes herring) has been identified by Langdon (2007:266) as "relational sustainability"[3]. This is the assertion that the principles of Tlingit sustainable resource management practices maintained over thousands of years are ground in a knowledge of the environment shaped in part by oral traditions identifying moral obligations of reciprocity and conservation. Tlingit oral traditions from Sitka recorded by Swanton (1909), specifically identify the importance of herring conservation in Sitka Sound, and repercussions of overharvesting.[4]

2. Historical Summary of Industrial Herring Management in Support of Herring Conservation

It is critical the Board of Fisheries members, charged with making herring management decisions, critically examine historical failures in herring management by the State that have resulted in Sitka Sound being the last remaining viable subsistence and commercial herring population in Southeast Alaska. The "relative" abundance of Sitka Sound stock in contrast to reduced stocks in other parts of Southeast Alaska must be evaluated against the backdrop of historical management failures and in consideration of the ecological importance of herring to other critical marine subsistence and commercial resources, such as king and Coho salmon which are vital to the wild seafood economy in Sitka.

Industrial scale commercial harvesting of herring began in 1882 with the development of Killinsoo Reduction Plant in Chatham Strait on Admiralty Island.[5] Southeast Alaska herring bait fisheries began in 1910 to support the growing regional halibut fisheries. The quantity of herring harvested for reduction plants peaked in 1928. During much of this same period shore based industrial whaling was taking place in Chatham Strait, Cape Ommaney and southern Baranof Island. The ecosystem disruption caused by a reduction in the whale population can be attributed to supporting the abundance of Southeast Alaska herring in the early to mid-twentieth century (Thornton et al 2010:293). This conclusion is supported by other work in the North Pacific (Springer et al 2003).[6] A model developed Witteveen et al (2006)[7] indicates that historic whale harvests from waters around Kodiak released 10,000 tons of prey annually. This model suggests that the reduction of whales would have caused an ecosystem disruption contributing to early twentieth century herring abundance and the ability of herring stocks to partially recover in some areas after over exploitation for reduction plant fisheries.

Between 1932 and 1934 three successive recruitment failures led to collapse in Southeast Alaska herring population. In 1939 and again in 1942 all herring fisheries in Southeast Alaska were closed. The state of

[3] Langdon, Stephen 2007, Sustaining a Relationship: Inquiry into the Login of Engagement with Salmon among the Southern Tlingit. In Native Americans and the Environment: Perspectives on the Ecological Indian. Lincoln: University of Nebraska Press

[4] Swanton, John 1909, Tlingit Myths Smithsonian Institution Bureau of Ethnology Bulletin 39. Washington D.C.: Government Printing Office

[5] This historical review is based on Chapter V of Thornton et al Herring Synthesis (see footnote 1). This data was originally compiled by former ADF&G Biologist Fritz Funk. Additional citations provided as relevant.

[6] Springer, A.M., J.A. Estes. G.B. Van Vliet, T.M. Williams, D.F. Doake, M.D. Danner, K.A Forney and B. Fister 2003. Sequential megafaunal collapse in the North Pacific Ocean: an ongoing legacy of industrial whaling? PNAS 100:1223-1228.

[7] Witteveen, B.H., R.J. Foy, and K.M. Wynne 2006. The effect of predation (current and historical) by humpback whales (Megaptera novaeangliae) on fish abundance near Kodiak Island, Alaska. Fishery Bulletin 104:10-20

Alaska began managing herring in 1959 and in 1972, after nearly a century of harvesting and multiple herring collapses ADF&G began surveys for development of sac roe herring fisheries. This summary historic timeline suggests the pre sac roe baseline herring population estimates that were the basis for the development of the sac-roe fishery were based on highly depleted herring stocks. Following the development of the sac roe fisheries in Southeast Alaska there have been multiple regional collapses in herring stocks.

- 1980 West Behm Canal herring fishery closes after one sac roe and three bait fisheries (Rauwolf 2006)[8]
- 1980 Auk Bay Lynn Canal herring collapse (Third largest S.E. Alaska herring biomass) (Rauwolf 2006)
- 1990 Kah Shakes sac roe fishery Collapses (Second largest S.E. Alaska biomass) (Rauwolf 2006)
- 1995 Kah Shakes biomass reduced from 20,000 ton biomass to 143 tons (Rauwolf 2006)
- 1998 Cat Island sac roe herring gillnet fishery exceeds quota by 11% (Rauwolf 2006)

These examples highlight some of the failures in herring management since the state began managing herring for a sac roe harvest. Today of the of the twenty plus commercial herring fisheries in Southeast Alaska identified in 2016 ADF&G regulations only Sitka Sound supports a viable subsistence and commercial herring fishery.[9]

To presume that continued management of herring in Sitka, along a downward shifting baseline does not invite the collapse of the last remaining viable commercial and subsistence herring fishery is to ignore the historic collapse of every southeast Alaska herring fishery. These data suggest management of these herring stocks should be highly conservative in order to help stabilize and rebuild herring stocks for both present user groups and future generations of Alaskan harvesters.

As further evidence of regional herring decline Local and Traditional Ecological Knowledge documentation published in 2010 and 2015 (See Footnote 1) identified that between 1915 to the present knowledgeable experts identified 2,759 miles of herring spawn areas. Yet from 1970-2007 ADFG identified only 1,118 miles of spawn. This research suggests that herring spawn areas now less than half of what had been identified prior to ADF&G management of herring for a sac-roe purse fishery (see footnote 1). Based on these historic data Thornton et al 2010 reached conclusion herring stocks in Sitka Sound are being managed in depleted state (See footnote 1).

3. Ecological Significance of Herring for other Marine Resources in Support of Herring Conservation

Concurrently herring have a critical role as forage fish for other important commercial and subsistence resources that are vital to the seafood harvesting culture and way of life in Sitka. Research conducted by the Canadian Department of Ocean and Fisheries has identified the critical ecological niche of herring in the marine environment. Pacific herring are fed upon by a diversity of marine predators that include

[8] Rauwolf, Andy, 2006 An expose on the history and controversy surrounding commercial herring management in Southeast Alaskan fisheries (excluding Sitka Sound). Electronic document, http://www.sitnews.us/0106Viewpoints/011706_andy_rauwolf.html, accessed 8/20, 2007

[9] http://www.adfg.alaska.gov/static/fishing/PDFs/commercial/regulatory_herring_map.pdf

marine birds, mammals, fishes and invertebrates. Off the coast of Vancouver Island, adult herring comprise major proportions of the diet of the following species.[10][11]

Chinook Salmon – 62%,
Coho Salmon – 58%,
Lingcod – 71%
Harbor Seals – 32%

All three of these marine finfish are critical commercial and subsistence marine resources harvested in Sitka and seals are an important subsistence marine resource. Sitka is the largest commercial troll port in Alaska. The troll fisheries specifically target Chinook and Coho Salmon. Salmon originating in watersheds along the entire west coast of North America, outside of Alaska as well as salmon from Alaska watersheds feed on herring in the eastern Gulf of Alaska and are also targeted by Alaska commercial hand and power trollers out of Sitka and other Southeast Alaska communities. The commercial troll dinglebar fishery in Central Southeast Outside Waters (CSEO) reporting area targets lingcod and rock fish that rely upon Sitka Sound herring stocks. A collapse of local herring stocks would have devastating impacts on the viability of multiple components of the seafood harvesting economy of Sitka and other Southeast Alaska fishing communities. Management of herring for the benefit of the sac roe fishery must consider the critical ecological role of herring for the viability of other local commercial and subsistence fisheries.

Section 15 of Article VIII of the Alaska State Constitution identifies there is no exclusive right of a fishery guaranteeing there is no monopolistic right to a resource by one user group. Recognition of the critical role of herring to multiple user groups and the ecological function of herring for the viability are critical for sustaining Alaska fisheries.

4. <u>Comments on Individual Proposals</u>

Proposals 98 and 99 both seeks to reduce Sitka Sound commercial sac roe harvest levels as a herring conservation measure to ensure long term health of the Sitka Sound herring biomass and in support of subsistence harvests. These proposals do not seek to rescind the commercial sac-roe fishery. Rather by reducing the harvest percentage it seeks to ensure the long term viability of herring for all user groups and other marine resources that are critical to local commercial and subsistence fisheries. Proposals 98 and 99 are consistent with Section 4 of Article VIII of the Alaska Constitution which identifies resources are to be managed based on principle of sustained yield as well as with Alaska Statute AS16.05.258 identifying the resources must be managed to ensure subsistence harvests prior to allocating resources to other user groups.

On 11/29/2017 the Sitka ADF&G Advisory Committee reviewed herring proposals and unanimously voted in support of proposal 99 with amendment to modify the GHL for Sitka Sound in order to make it consistent with the formula used *in every other herring fishery in Southeast Alaska.* BOF members

[10] https://www.raincoast.org/projects/marine-birds/pacific_herring/

[11] IPHC Technical Report 21 Halibut as Predator and Prey E.A. Best and Gilbert St. Pierre. This report also identifies the role of herring in the diet of Pacific Herring in the Gulf of Alaska. Halibut is a critical resource for both subsistence and commercial harvesting in Sitka.

should consider the strong level of community support across different user groups in support of herring conservation measures in Sitka and **adopt** proposal 99 in support of herring conservation.

Proposal 94 Submitted by Southeast Alaska Herring Alliance submitted in support of the Sac Roe Purse seine permit holders seeks to reduce the Amount Necessary for Subsistence (ANS). In 2002 the BOF made determination that the ANS for herring eggs in Sitka Sound was 105,000 to 158,000 lbs. In 2009 the BOF made an upward revision to the ANS based on the mean estimated harvest between the years 2002-2008. The revised ANS was set at 136,000-227,000 lbs. Proposal 94 **is not** consistent with recent BOF recognition of upward shifting trend in harvests to meet the herring egg ANS in Sitka Sound. Rather by seeking to lower the ANS threshold proposal 94 seeks to expand harvest opportunities for the commercial sac roe seine fishery at the expense of subsistence harvesters.

Based on ADF&G statistical data the overall subsistence harvest of marine fish in Alaskan waters is .9%, while the commercial harvest makes up 98.5 of marine fish harvested in Alaska waters.[12] Given the scope of this discrepancy further limiting subsistence harvests to benefit the commercial sac roe harvest group is not consistent with Section 15 of Article VIII of the Alaska State Constitution identifying there is no exclusive or monopolistic right to a fishery by one user group. Proposal 94 reduces resource harvest opportunities for local residents and is also oppositional to wide ranging conservation concerns voiced by Sitka residents and the recommendation of the Sitka Advisory Council to manage herring stocks conservatively. I therefore strongly encourage the BOF to **NOT** adopt proposal 94

Proposal 104 also submitted by the Southeast Alaska Herring Alliance Proposal seeks to repeal the 2012 BOF action setting aside part of historic and traditionally used harvest area identified through ADF&G Subsistence research.[13] This proposal would expand the geographic areas where commercial seining is permitted to pre 2012 areas. The area set aside for subsistence harvesting in 2012 was a small subset of the areas that have been identified as historical and traditionally used subsistence herring egg harvest by the ADF&G Subsistence Division (See footnote 13). This proposal reduces harvest opportunities for subsistence harvesters in Sitka Sound by placing them in more direct competition with commercial harvesters and I encourage the BOF members to **NOT** adopt proposal 104.

Over past harvest cycles The ANS (Amount needed for Subsistence) for herring eggs has not been met in Sitka Sound which is the ONLY viable subsistence and commercial fishery in Southeast Alaska of the 20 plus Southeast Alaska herring fisheries identified in 2016 ADF&G commercial herring regulations (see footnote 9). The small areas closed to commercial herring fishing in Sitka Sound is only a subset of the traditional primary subsistence harvest area used by Tlingit and non-Native subsistence harvesters and does not impact the overall viability of the herring seine fishery(See footnote 13).

ADF&G herring management models have also failed to accurately predict the harvestable quantity of herring in recent harvest cycles. Current models do not account for fluctuations in ocean conditions or predation impacting herring survival. Based on these complex and interrelated factors reducing the area for exclusive herring harvest is un Alaskan and violates Alaska statute **AS 16.05.258. SUBSISTENCE USE AND ALLOCATION** mandating subsistence needs must be met prior to consideration of opening fishery to other encourage the BOF members to **NOT** adopt proposal 104.

[12] http://www.adfg.alaska.gov/static/home/subsistence/pdfs/subsistence_update_2014.pdf
[13] http://www.adfg.alaska.gov/techpap/TP%20343.pdf

Proposal 105 proposed by the Sitka Tribe of Alaska seeks to expand the area closed for commercial harvesting consistent with ADF&G Subsistence Division Technical Report 343 identifying areas traditionally and historically used for harvesting herring spawn in order to help ensure community needs for herring spawn are met. This proposal does not seek to close the commercial sac-roe seine fishery but to expand areas set aside exclusively for subsistence harvesting.

ADF&G Subsistence Division Technical Report 428 "The Subsistence Harvest of Pacific Herring Spawn in Sitka Sound" has identified fluctuations in the number of households participating in harvesting spawn. This data must be looked at through the appropriate analytical lens in order to avoid non-accurate correlations about household participation and annual harvests.

Based on decades of data collection ADFG Division of Subsistence has long looked at household participation in subsistence harvesting through what the division identifies as the "30-70" Rule.[14] This is the understanding that 30% of households in a community are typically responsible for 70% of community harvest in terms of useable pounds. This is especially significant in times of low resource abundance. When there is high level of resource availability with easy access more households will directly participate in harvest activities. When there is resource scarcity or difficulty in harvesting more households will depend on expert harvesters (the 30%) to supply them with subsistence resources. Thus recent lower levels of recorded household participation is NOT evidence of decline in level of effort, resulting in ANS not being met. This data identifies that the level of effort to obtain spawn is increasing. This is consistent with data recorded by the Sitka Tribe Resource Protection, Traditional Food Program which suggests that among households participating in subsistence the level of effort has actually increased. The table below indicates that over past two year period alone the number of sets of hemlock boughs being made has more than doubled while the actual amount of herring spawn harvested has fallen dramatically.[15]

Year	Sets (#)	Harvest (pounds)
c. 2002-2015	approx. 15	approx. 4,000-5,000
2015	21	9,600
2016	31	3,600
2017	33	1,260

Proposal No 105 seeks to broaden the subsistence harvest area to include those areas identified in ADF&G Subsistence Technical Report 343 into the existing area reserved for subsistence herring harvesting. The areas included in the proposed expanded subsistence zone includes important road access areas such as around Halibut Point and nearby marine access areas around Middle and Big and the Gavinski Islands. This proposal coupled with conservation measures Identified in proposals 98 and 99 seeks to provide subsistence harvesters greater opportunity to harvest and result in additional conservation of herring while continuing to support a Commercial Sac Roe seine fishery in Sitka Sound.

Therefore it is my recommendation that the BOF **ADOPT** Proposal 105.

[14] https://www.adfg.alaska.gov/static/home/library/pdfs/subsistence/subsistence_2011.pdf

[15] Unpublished Data recorded by Sitka Tribe Resource Protection Program, Pers Comm, Kyle Rosendale Sitka Tribe Fisheries Biologist 12/19/2017

Proposal No 106 seeks to create additional conservation areas for purpose of conserving and rebuilding herring stocks in Sitka Sound, and should be viewed in conjunction with Proposal 105. This proposal seeks to restrict commercial herring in parts of Aleutkina Bay and Nakwasina Sound and Katlian Bay. Proposal 106 is based on conservation practices identified in Traditional Ecological Knowledge (TEK) research with Tlingit elders from Sitka and published in peer reviewed journals (see footnote 2). Tlingit TEK identified the areas identified in proposal 106 as important rearing areas for young herring. These are also areas where both historically and within living memory Sitka Tlingit people created herring spawn habitat by placing hemlock boughs into the substrate and where herring spawn has been moved to in-order to create spawn in new habitat areas. This proposal therefore seeks to enhance herring abundance throughout Sitka Sound for the benefit of all user groups through limiting on access into critical habitat areas for young herring that are not in a reproductive age class and are not targeted by commercial harvesters. These areas have also historically been used for subsistence harvests (See footnote 1). This proposal dovetails with other proposals 98, 99, and 105 which seek to reduce commercial herring harvest for purpose of long term herring conservation and expand current areas identified for subsistence harvest based on Traditional Ecological Knowledge.

Proposal 106, in conjunction with Proposal 105, are designed to support Sitka subsistence harvest and more broadly the conservation of herring as a keystone that are a critical resource for other marine resources (see footnote 10) None of these proposals seek to end commercial sac roe seine fishing in Sitka Sound.

What these proposals DO seek to accomplish is a measured reduction harvest commercial harvest levels and to expand the area identified for subsistence harvesting in order to promote herring conservation for the benefit of all user groups consistent with the sustained yield mandate identified in Section 4 of Article VIII of the Alaska State Constitution. Therefore I encourage the BOF to **adopt** Proposal 106

5. <u>Summary Defense for Sitka Sound Herring Conservation</u>

The congruence of archeology and TEK identify deep historic use and sustainable management of herring by human populations (See section 1). Concurrently the comparatively brief history of State management of herring has contributed to overall decline in herring abundance throughout Southeast and the collapse of every other Southeast Alaska herring fishery (See Section 2). I ask the Board of Fisheries members to take a long view on herring management in Southeast Alaska and adopt proposals in support of long term herring conservation and subsistence harvest opportunities in Sitka Sound for benefit of all Alaskans

People have harvested herring in Southeast Alaska and Sitka Sound for over 9,000 years. Herring are critical for multiple other commercial fisheries based in Sitka such as the commercial trolling fleet which is vital to the local seafood economy and way of life in Sitka and throughout Southeast Alaska. Herring conservation measures ultimately serve to benefit all user groups including the long-term viability of the sac-roe seine fishery. A precipitous decline in herring based on failure to correctly evaluate the health of the Sitka Sound herring within its historic and ecological context as the last viable subsistence and commercial herring stock in Southeast Alaska could result in Sitka becoming yet one more of the "historic" Southeast Alaska herring fisheries. This would have devastating impacts on the local subsistence and commercial seafood harvesting economy, culture and way of life in Sitka.

Therefore as fellow Alaskans I strongly urge all BOF members to read and listen to all of the passionate comments submitted to the BOF in support of herring conservation and recognize the vital cultural and economic importance of herring to all local fisheries beyond Sac Roe Seine fishery. Management of Sitka Sound herring for a sustained yield must consider their ecosystem contributions for other commercial and subsistence resources beyond the sac-roe seine fishery. Therefore I encourage you to **adopt** proposals 98, 99, 105, 106 in support of conservation and subsistence harvesting. None of these proposals seek to close down the herring sac roe seine fishery in Sitka Sound

I also encourage the BOF to **NOT** adopt proposals 94, 104, 107 that would reduce the ANS for herring and reduce areas reserved for subsistence harvesting and place subsistence harvest in conflict with another gear type during periods of shortage. Adoption of these proposals have the potential to significant and potentially devastating and irreversible impact on herring and other fisheries dependent upon health Sitka Sound herring stocks.

Thank you for taking the time to consider these comments in support of long term and sustainable herring management and thank you for your service on behalf of all Alaskans.

Submitted By
Josh Wisniewski
Submitted On
12/28/2017 1:20:12 PM
Affiliation
Commercial Hand Troller

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907-623-7144
Email
jwisniewski04@gmail.com
Address
PO Box 474
Sitka, Alaska 99835

To the Alaska Board of Fisheries Members:

My name is Josh Wisniewski. I live in Sitka Alaska. I am a commercial hand troller. I rely on trolling for an important portion of my income. Commercial salmon trolling is critical to the seafood harvesting economy in Sitka. Salmon trolling is also critical to the diversity of Alaska as a unique cultural way of life with deep regional history.

My comments here are in support of proposals that have the potential to enhance and provide access and opportunity for troll fishermen.

Commercial trolling is critical to the economy of Southeast Alaska. According to the Alaska Trollers Association (ATA) 85 percent of troll permit owners live in Southeast Alaska and 1 in 40 residents of Southeast Alaska participate in commercial salmon trolling.[1]

The Southeast Alaska troll fleet has a long history of contribution to sustainable management and enhancement of Alaska's salmon resources. As a hook and line fishery trolling providing the highest quality salmon for fresh seafood markets. Commercial salmon trolling is one of Alaska's most low impact and sustainable commercial fisheries, with a history in southeast Alaska that predates the use of gas powered engines on boat that began in the early twentieth century.

As a commercial troller I am in support of the following proposals:

136; 139; 149; 150; 151; 173; 174; 176; 177; 180; 183; 184 and 186

I encourage the BOF to **adopt** these proposals in support of Southeast Alaska trolling families.

As a commercial troller I am **opposed** to the following proposals:

37, 123, 132; 133, 134 144; 146; 148; 169; 170; 178; 179; 181; 182; 185

Comments in support of individual proposals

Proposal 173 is in support of chum trolling in Districts 12 and 14 This proposal seeks to remove the sunset provision, as follows: Delete [(e) The provisions of this section do not apply after December 31, 2017.] This is an economically important chum troll fishery. Concurrently maintaining it results in Chinook conservation as it spreads out the troll fleet with more trollers targeting chum this results in less gear targeting Chinook salmon. I encourage the BOF to **adopt** proposal 173.

Proposal 177 would allow for salmon trolling for Coho salmon to take place in certain during salmon conservation closures. The purpose of this proposal is to assist the commercial trollers to meet the allocation of hatchery produced Coho salmon.

In 1994, the BOF formed a task force composed of seine, gillnet, and troll representatives to develop an allocation plan for enhanced salmon. This Task Force recommended, and the Board approved, a troll allocation of 27-32% of the total value of the commercial catch of enhanced salmon.

The troll fleet has consistently fallen short of its allocated share of enhanced salmon for 22 consecutive years and since 2005, the actual troll share has averaged just 16-19%. This proposal would seek to provide more opportunities for trollers to harvest the troll allocation of hatchery produced salmon as per the established allocation scheme.

I highly encourage the BOF members to **adopt** proposal 177 in support of Southeast Alaska salmon trolling families.

Proposal 183 was submitted by the Yakutat Area Fish and Game Advisory Committee in response to changes in the mouth of the Situk River, and the need to adjust trolling boundaries in relation to the movement of the river mouth.

The Situk River mouth has shifted west approximately 2 miles. The Yakutat Advisory Committee submitted a proposal to move the no trolling corridor in place around the mouth of the Situk estuary Westward Approximately 2 miles to account for the river's migration. During the last BOF cycle the location of the troll boundary was not changed in conjunction with changes in the river mouth. This proposal seeks to address that discrepancy. I encourage the BOF to **adopt** Proposal 183.

The following comments are in response to Draft Chinook Management Plans for the Unuk, Chilkat and King Salmon River Systems. As a fisherman and an Alaska who appreciates the privilege of harvesting wild fish I am supportive of conservation and habitat protection to ensure the health and viability of our wild salmon resource

Commercial Trolling for Chinook salmon is one of Alaska's oldest commercial fisheries. It is a fishery that developed prior to the use of internal combustion engines. Multiple small rural Southeast Alaska communities developed as trolling communities in the early twentieth century. Today trolling is a low impact artisan fishery that make an important regional economic contribution. More broadly than the economic contribution of salmon trolling to Southeast Alaska communities trolling is a unique cultural way of being whose contribution to the diversity of Alaska cannot be measured. Proposed changes in the management of Chinook management must consider the potential impacts on the socio-economic and cultural value of the troll fishery.

Concurrently trollers have unique knowledge of salmon and many fishers have multi-generational knowledge of changes in salmon abundance and behavior that can contribute significantly to the conservation and sustainable management of Chinook salmon for present and future generations. Future changes in Chinook management for the purposes of conservation should seek to draw upon troller knowledge.

The Chilkat, Unuk and King Salmon Draft Management Plans were released on December 22nd and provide an incredibly limited window for review and comment prior to the close of 2017 Board of Fisheries Comments on December 28. This places an unrealistic burden on trollers (the user group impacted by proposed ADF&G changes) to evaluate data and provide informed and meaningful responses.

These draft management plans consistent of multiple options that include restrictions on commercial salmon trolling, to protect Chilkat and Unuk River Chinook. On 12/27/2017 the ADF&G Sitka Advisory Council proposed changes to the ADF&G Draft Management Plans, which were submitted to the Board of Fisheries. As a commercial troll permit owner I am in support of the changes to the draft management plans proposed by the Sitka Advisory Council. The changes proposed by the Sitka Advisory Council (based on publically available data) propose surgical adjustments in commercial troll management, in order to protect salmon migrating to the Chilkat and Unuk River while also seeking to minimize the socio-economic impacts to the Sitka troll fleet, which is the largest troll port in Alaska.

The changes in the drafty management plan proposed by the Sitka Advisory Council seek to avoid the imposition of arbitrary restrictions on commercial trolling in areas, and during periods of time where Chinook bound for these river systems do not appear to be harvested in statistically significant quantities. Concurrently the changes to the draft management plans proposed by the Sitka Advisory Council **do** seek to restrict some commercial troll harvesting during times and in areas where Chinook bound for the Unuk and Chilkat are encountered for purpose of supporting conservation and the rebuilding of Chinook stocks for the benefit of all Alaskans.

Sitka Advisory Committee proposed adjustments to the Chilkat King Salmon Rivers King Salmon Management Plan to include the following:

Option B, Specific Action To Implement the Objective: on page 20 &21 of the Chilkat and King Salmon Rivers Stock Status and Action Plan 2018.

2. Troll Fisheries: Combination of time and area changes and closures.

Winter Troll: notwithstanding any remaining seasonal guideline harvest level [CLOSE THE WINTER TROLL FISHERY IN ALL WATERS OF SEAK/YAKUTAT BEGINNING SW 12, WITH] Section 15-A in Lynn Canal/Chilkat Inlet north of the latitude of Sherman Rock remaining closed to commercial trolling through December 31.

Spring Troll: limit opportunities during May and June spring troll king salmon fisheries to [TERMINAL HARVEST AREAS, WATERS IN CLOSE PROXIMITY TO HATCHERY FACILITIES OR RELEASE SITES; AND] areas and times that have not been identified as having relatively high proportional harvests of wild stock Chilkat [SEAK/YAKUTAT] king salmon; spring troll chum fisheries, as described in the District 12 and District 14 Enhanced Chum Salmon Troll Fisheries Management Plan (5 AAC 20.114) to open June [15] 11 with the retention of king salmon prohibited.

Summer Troll: [DELAY THE FIRST RETENTION PERIOD FOR KING SALMON DURING THE GENERAL SUMMER TROLL FISHERY BY A WEEK]. Open on July 1 to target 70% of the remaining troll king salmon annual allocation minus the number of treaty king salmon harvested in winter and spring troll. [ON JULY 8.] Remaining 30% to be harvested in August!

Troll Benefits: These amendments provide great socioeconomic benefits to the troll fishery, do not disrupt the traditional July 1 opening of the summer troll fishery with retention of king salmon, preserve chum troll opportunity beginning on June 11 as negotiated for a section of District 12, with minimal impact on Chilkat king salmon. See attached sheet.

Troll Detriments: The proposed ADF&G plan will eliminate an average of 3020 troll kings in district 113-95 and 114 worth over $300,000 to save on average of 92 Chilkat king salmon in the spring troll fisheries.

The winter troll closure, while having some benefits in late April for Unuk king salmon does not benefit Chilkat king salmon.

The summer troll opening delay will cause huge disruptions to the troll fishery to save no more than 10 Chilkat kings a year.

Sitka Advisory Committee proposed adjustments to the Unuk River King Salmon Management Plan to include the following:

Winter Troll:

Notwithstanding any remaining seasonal guideline harvest level the winter troll fishery will close in all waters of [SOUTHEAST ALASKA/YAKUTAT ON MARCH 15] District 13 on April 15.

Spring Troll: Opportunities during May and June spring troll king salmon fisheries will be limited to [THAS, WATERS IN CLOSE PROXIMITY TO HATCHERY FACILITIES OR RELEASE SITES;] areas and times that have not been identified as having relatively high proportional harvests of wild stock UNUK [SEAK/YAKUTAT] king salmon; spring troll chum fisheries, as described in the District 12 and District 14 Enhanced Chum Salmon Troll Fisheries Management Plan (5 AAC 20.114) to open June [15] 11 with the retention of king salmon prohibited.

Summer Troll: [DELAY THE FIRST RETENTION PERIOD FOR KING SALMON DURING THE GENERAL SUMMER TROLL FISHERY BY A WEEK]. Open on July 1 to target 70% of the remaining troll king salmon annual allocation minus the number of treaty king salmon harvested in winter and spring troll. [ON JULY 8.] Remaining 30% to be harvested in August!

Troll Benefits: These amendments provide great socioeconomic benefits to the troll fishery, do not disrupt the traditional July 1 opening of the summer troll fishery with retention of king salmon, preserve chum troll opportunity beginning on June 11 as negotiated for a section of District 12, with minimal impact on Unuk king salmon. See attached sheet.

The winter troll closure benefits Unuk king salmon in 113 after SW 16.

Troll Detriments: The summer troll opening delay will cause huge disruptions to the troll fishery to save few Unuk River spawning king salmon and could be better served by use of time and area king salmon non-retention after July 1.

There is a significant and immediate need for the Board of Fisheries to direct ADF&G to critically examine the ecological factors contributing to the current down cycle in King Salmon abundance including climate change and marine survival and to work in partnership with the commercial troll fleet in the development of actions in support of promoting and maintaining healthy and viable Chinook populations in Southeast Alaska watersheds for the benefit of all Alaskans.

Thank you for taking the time to read these comments and for your service on the Board of Fisheries for all Alaskans.

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[1] http://www.aktrollers.org/what_is.html

Julianne Curry
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Cell- 928.380.3250
sockeye22@hotmail.com

December 28th, 2017

Alaska Board of Fisheries
John Jensen, Chair
Via email dfg.bof.comments@alaska.gov

RE: 2018 SOUTHEAST FINFISH, BOARD OF FISHERIES HERRING PROPOSALS

Chairman Jensen and members of the Board of Fisheries,

Thank you for the opportunity to comment on herring proposals during the Southeast cycle. I am writing to provide comments on the following:
Support for proposals 94 and 104
Oppose proposals 95, 96, 98, 99, 100, 105 & 106
Oppose proposal 107 *at this time*

I am a fourth generation fisherman and Petersburg resident, and I began fishing when I was 14 years old. I currently fish in Southeast Alaska for halibut (as a quota share holder), sablefish, salmon seine, and herring seine. I started participating as a crewmember in the Sitka sac roe herring fishery in 2006, and 2016 was my first year participating as a permit holder in that fishery. This meeting will be my third Board of Fisheries (BOF) cycle.

As a herring sac roe permit holder, my fishing income is fully dependent on the ability of the Alaska Department of Fish and Game (ADF&G) to manage harvest opportunity based on sustainability and available biomass. Sitka herring is one of the most studied fisheries managed by the State of Alaska. It is imperative that ADF&G is given the management flexibility to effectively conduct a sustainable fishery to ensure that fishermen have adequate access to the resource but more importantly, that the resource is available for the coming years.

General Comments Regarding Herring & Fisheries Management in Alaska:

Fisheries management should not support efforts to close fishing area based on appearance instead of science. It is also important to note that closing herring fishing area will not force herring to spawn in that area. ADF&G has decades of information on herring spawn area and deposition that indicates herring will spawn where they want, not were we want them to.

Additionally, fisheries management should also not allow the use of subsistence proposals as a tool to unnecessarily restrict management ability and commercial harvest. ADF&G has a strong history of managing the Sitka herring fishery for the natural fluctuations that occur with fisheries resources. As such, there is enough herring for all in Sitka. It is important to acknowledge that although the need for subsistence herring has remained relatively stable, participation in the subsistence fishery has declined resulting in tension amongst user groups that is not related to commercial harvest.

As stated in ADF&G comments for proposal 104, many factors impact subsistence harvest. "These factors include natural variability in spawn distribution and timing, weather patterns, and the number of individuals attempting to harvest for subsistence purposes. Since much of the subsistence effort is currently focused in specific areas, natural changes in spawn distribution would also be expected to affect harvesting success."

Permit holders, crewmembers, tendermen, processors, and pilots come from all over the state to participate in the Sitka herring fishery. The economics of this pulse fishery reverberate throughout Sitka, the region, and Alaska. **Given the unpredictability of herring spawn timing and the short duration of open fishing periods, the fleet needs as much stability as the BOF can provide.**

I plan to attend the BOF Southeast finfish meeting and will be available to serve on the herring committee if the Board feels that my input would provide value.

Comments on the Southeast Board of Fisheries Cycle Timing:
In addition to the herring comments provided, I would also like to take this opportunity to request that the BOF solicit input and consider moving the meeting timing for the Southeast cycle. January and February are times where fishermen in Southeast are prepping for the upcoming crab fisheries. The majority of Southeast fishermen are multi-gear, multi-species harvesters which means that even if they are able to make the crab portion of the meeting, they are missing out on critical salmon, herring, and groundfish discussions at the BOF. Southeast fisheries keep the fleet busy from the end of January to the end of October. *I would request that the BOF consider moving the Southeast cycle to December when minimal fisheries are occurring*.

PROPOSAL COMMENTS:

Proposal 94, SUPPORT- Reduce the amount of herring spawn reasonably necessary for subsistence in Sitka Sound.
Subsistence harvest of herring eggs is an important part of the fabric of Southeast and I strongly believe in reasonable opportunity for subsistence harvest. I oppose efforts to use a decline in subsistence *effort* to justify restraints to management of the commercial fishery. Additionally, I strongly support working to gather data on all harvest methods (herring and roe) in order to protect the sustainability of Alaska's fishing resources. I agree with ADF&G that ANS findings should be made using the best available data.

Proposals 95 & 96, OPPOSE- Repeal the commercial sac roe herring fishery in Sections 15-B and 15-C. Repeal the commercial sac roe herring fishery in Section 11-A.
ADF&G needs to retain the management flexibility to execute sustainable fisheries. There is no science based rationale to support these proposals that request areas be closed to commercial harvest. Closing an area to commercial harvest will not increase participation in subsistence herring roe harvest, which is the primary reason that subsistence harvest is in question. The justification for supporting this proposal would be based on perception as opposed to reality.

Proposals 98, 99 & 100, OPPOSE- Reduce harvest rate for commercial herring fisheries in the Southeastern Alaska Area. Reduce maximum harvest rate used to establish the commercial sac roe herring fishery guideline harvest level in Sections 13-A and 13-B from 20% of the spawning biomass to 10% of the spawning biomass. Amend formula

used to calculate guideline harvest levels for the commercial herring sac roe fishery in Sections 11-A, 15-B, and 15-C.

ADF&G has decades of experience and a proven track record for sustainably managing herring. Alaska, Sitka in particular, is the gold standard on the West Coast for herring management. Please allow ADF&G to continue to manage our successful fisheries. As with all species, there is are natural spikes and dips in herring biomass. This is part of the cyclical nature of natural renewable resources. There is enough herring for everyone without continually trying to undermine the reputation of our management.

Proposal 104, SUPPORT- Repeal closed waters in the District 13 commercial herring fishery.
The closure of the core area was designed to restrain commercial harvest and restrict ADF&G management ability. Additionally, having an area closed to commercial harvest does not guarantee that herring will spawn in that area.

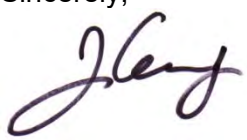
Despite recommendations made by Office of Subsistence Management biologists and the State of Alaska, the Federal Subsistence Board shut down federal waters around Makhnati Island in 2015. The action by the FSB has resulted in federal overreach that took away the ability of the State of Alaska to manage fisheries within their jurisdiction. Therefore it is unnecessary to maintain the closed waters enacted by the BOF.

Proposals 105 & 106, OPPOSE- Expand closed waters in the District 13 commercial herring fishery. Expand closed waters in the District 13 commercial herring fishery.
Please do not support efforts to close fishing area based on appearance instead of science. It is also important to note that closing a herring fishing area will not force herring to spawn in that area. ADF&G has decades of information on herring spawn area and deposition that indicates herring will spawn where they want, not where we want them to.

Proposal 107, OPPOSE AT THIS TIME- Management plan for herring spawn on kelp in pounds fisheries in Sections 3-B, 12-A, and 13-C, and District 7. Establish a herring spawn on kelp commercial fishery in Sections 13-A and 13-B.
Although I understand the logic behind the intent of this proposal, I don't believe that the fleet or processors are ready to see the Sitka sac roe fishery transition to a roe on kelp fishery without a lot of discussion on what that would look like. *I am interested in listening to the discussion surrounding this issue and possibly revising my position based on additional information.*

Thank you for your time and your attention to the fisheries of Southeast Alaska. Please feel free to reach out if you need any clarity or have questions.

Sincerely,



Julianne Curry

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December 27, 2017

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

RE: Comments on herring proposals for SE Shellfish Meeting Jan. 11-14, 2018

Dear Chairman Jensen and Board of Fish Members,

As a second generation Fishermen from Petersburg Alaska I have been involved in the salmon, herring, and crab fisheries in Southeast Alaska all my life. As well as many other net, pot, and hook fisheries on the West Coast and Gulf of Alaska. I currently own and operate the F/V Defiant out of Petersburg, Alaska and reside in Sitka, Alaska.

I am writing to express my:

Opposition to Proposal 73

As a current Tanner Crab permit holder, I oppose turning this fishery in to a equal quota share fishery. I believe that equal quota share fisheries make it harder for new entrants to get in to the fishery. At this time, the tanner stock is strong in SE and I see no biological concern to change the fishery.

Support for Proposal 72

I see no harm in having exploratory areas in SE for Tanner Crab. Due to season length, we do not get time to explore these areas for harvestable crab; possibly leaving economic opportunity in the water.

Support for Proposal 93

As the writer of this proposal I support it and its intention to harvest Market Squid in the State waters of Alaska. The growing population of squid in Alaska left untouched as a harvestable resource could be devastating to other resources; as they are aggressive feeders and have a very short life cycle. As an economic opportunity, this resource is going untouched.

I would like to thank you for your service to the State of Alaska. I will be at the meetings and look forward to meeting and working with each of you.

Sincerely,

Justin Peeler

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Sitka, Alaska 99835
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December 27, 2017

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

RE: Comments on salmon proposals for SE Finfish Meeting Jan. 15-23, 2018

Dear Chairman Jensen and Board of Fish Members,

As a second generation Fishermen from Petersburg Alaska I have been involved in the salmon, herring, and crab fisheries in Southeast Alaska all my life. As well as many other net, pot, and hook fisheries on the West Coast and Gulf of Alaska. I currently own and operate the F/V Defiant out of Petersburg, Alaska and reside in Sitka, Alaska.

I currently serve my gear group(seine) as a officer on the board of directors for Southeast Alaska Seiners Association(SEAS). I am also a seine representative on the board of directors for Norther Southeast Regional Aquaculture Association(NSRAA). I am writing to you on behalf of myself and my comments below are my opinion.

For proposal 142 I would like you to read through this proposal carefully and I would like to point out that this is an attempt to get the seine fleet in to their allocated range, of enhanced fish. It is written in a way to get us in our range and not over our range, like the gillnetters currently sit. We are only asking for what is ours and this proposal is written in away that proves that.

For all other Salmon proposals, I would like you to refer to written comments presented to you by SEAS.

Thank you for your service to the State of Alaska. I will be attending the meeting and look forward to meeting and working with each of you.

Sincerely,

Justin Peeler

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December 27, 2017

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

RE: Comments on herring proposals for SE Finfish Meeting Jan. 15-23, 2018

Dear Chairman Jensen and Board of Fish Members,

As a second generation Fishermen from Petersburg Alaska I have been involved in the salmon, herring, and crab fisheries in Southeast Alaska all my life. As well as many other net, pot, and hook fisheries on the West Coast and Gulf of Alaska. I currently own and operate the F/V Defiant out of Petersburg, Alaska and reside in Sitka, Alaska.

I am writing to express my:

Opposition to proposals 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, and 106
Support for proposals 94 and 104

Oppose Proposals 95 and 96 -Close herring fishing in 15-B 15-C and 11-A

Closing these areas to commercial herring fishing is not necessary, as the ADF&G manage these stocks and has kept it closed due, to not meeting minimum thresholds. When and if these stocks meet threshold there could be a managed fishery resulting in economic opportunity for the area.

Oppose Proposal 97 - change Food and Bait opening to December 1st

As a Food and Bait herring fishermen; I ask you to oppose this proposal asking to change the opening date for the fishery. It would greatly affect my market. The bait caught in this fishery gets shipped all around the state of Alaska and some to the West Coast. Providing the freshest bait possible to fishermen involved in Fisheries starting in December and January. Changing the start date would not allow me to fill those markets.

This is also a allocative proposal and the writer of this proposal is trying to curtail the catch of the Food and Bait fishery and also paint the fishery as wasteful and destructive to the resource so the unused portion of the harvest limit can be rolled into ROK fishery in the spring.

Oppose Proposals 98, 99 and 100 – Harvest rate

These proposals want to change the management of herring stocks in SE Alaska. Overtime the Sitka Sac Roe fishery has proven itself to be well managed by the ADF&G. Both sustaining the herring stock for all users and providing a strong commercial harvest. I believe the strong history of ADF&G to manage this stock on sound science does not call for any change in management of herring stocks.

Oppose Proposals 101, 102 and 103 – section 3b allocation

These proposals aim to reduce the Food and Bait fishery harvest percentage and increase the ROK's. As a Food and Bait fishermen I oppose this allocative grab. I believe these proposals are greed driven and are coming after action taken by the ADF&G to manage the ROK fishery in a way to sustain and protect the resource in 2016.

The ROK fishery was started due to a opportunity to use the unused Food and Bait harvest. At the conception of the fishery a unused portion of the Food and Bait harvest limit was allocated to the ROK fishery. At this time there is no unused/unmarketable harvest limit.

The herring caught in this fishery are used around the State of Alaska and West Coast. It provides countless Alaskan Fishermen opportunity by providing a fresh quality bait to be used in the pot, and hook fisheries. This is a Alaskan resource being harvested by Alaskans to be used to create economic opportunity around the State.

As a Food and bait fisherman I can also testify to the great working relationship we the fishermen in the food and bait fishery have with the department. Not only do we have log books in this fishery used to keep track of sets made and observations, we email and call the biologists on a trip by trip bases. All this is done to insure a well managed and sustainable fishery.

Oppose Proposals 105, and 106 – Expand closed waters in Sitka Sound.

These proposals aim to close more waters in Sitka Sound to commercial herring fishing. This is Sitka Tribe of Alaska using substance as a way to eventually shut down the commercial fishery. Using substance as a reason with such a flawed accounting of actual substance use or need is no way to manage Alaska's resources. There is just no scientific justification for this action and would result in a huge economic impact on the region.

Support Proposal 94 – Change ANS

There is one flaw in the management of the Sitka Sound Herring stock. It is the management of the substance users. The amounts reasonably necessary for substance (ANS) is wrong. It is a piece of data used to try and curtail the commercial fishery. We manage our fisheries based on best science available. The ANS is not and needs work. I ask you to support the Southeast Herring Conservation Alliance in finding the most accurate ANS; so that we can do away with this flaw in management.

Support Proposal 104 – closed waters in District 13

I am asking you to support proposal 104. I do not believe closing waters to commercial fishing is necessary for substance users to be able to meet substance needs. As shown by information presented by Southeast Herring Conservation Alliance; by having this area closed to commercial fishing of herring, it could greatly impact the ADF&G ability to manage the herring fishery for maximum sustainable yield.

In closing I would like to thank you for your time and service to the State of Alaska. I will be attending the meeting and look forward to meeting and working with each of you.

Sincerely,

Justin Peeler

Submitted By
ken davis
Submitted On
12/14/2017 4:53:49 PM
Affiliation
thinget an

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Sitka, Alaska 99835

Dear board of fish, i feel like the herring are being very over fished. i've observed in my life here in sitka, less and less herring spawn in the local area. i used to be able to pick up herring eggs off the beach. i would like to see herring here for my children and grandchildren to enjoy for there life.I did grow up with great enjoyment colecting herring eggs. I also feel that it is very unfair the there is herring fishermen on the board of fish! i would like to see herring fishery to stop or at least slowed way down.

From: Ken Larson
To: DFG, BOF Comments (DFG sponsored)
Subject: BOF Bottom Fish Release Tool Proposal
Date: Friday, December 15, 2017 1:23:42 PM

Gentlemen:

With regard to this proposal for Prince William Sound, I support the requirement. Many of us Halibut Charter Boat operators in PWS voluntarily started using this tool that was invented by Ace Calloway around 2010. It has worked well for us. The only concerns that I have is that this required tool use apply equally to ALL COMFish and Sport Fisherman as well. Please be specific on whether the tool has to be on board even if bottom fish are not targeted. Thanks,

Capt Ken Larson
Sanity Charters
PO Box 445
Valdez, AK 99686
907-251-7522

From:
To:
Subject: FW: Stocks of Concern Plan
Date: Friday, December 29, 2017 8:36:25 AM

From: Monique Wilkinson
Sent: Thursday, December 28, 2017 4:26 PM
To:
Subject: Stocks of Concern Plan

To the Board of Fisheries:

We have a family run business of three, husband, wife and 12 year old son. We troll for salmon and king salmon is 40% of our annual income. Conservation of a resource used by many individuals should not be the burden of one gear group. If conservation is really the issue, then no fish should be caught by anyone. Let everyone who uses the resource share the impact of conservation together equally.

Concerned fishing family,

Ken, Monique & Ardel Wilkinson

Submitted By
Kenneth Gross
Submitted On
12/27/2017 5:29:59 PM
Affiliation
NEVER MONDAY CHARTERS

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P.O. 906 (Summer)
Skagway, Alaska 99840

My name is Ken Gross. I own NEVER MONDAY CHARTERS in Skagway. I'm writing about the Fish & Game's proposal to the Board of Fish about not letting anyone fish for King Salmon until July 15th in area15A. The area I'm concerned with is Taiya Inlet North of Taiya Point. I'm hoping you can help with the decision the Department of Fish & Game is about to make. First I would like to give you some information on my Southeast, Alaska experience so hopefully feel like you know me a little when you read my letter.

I have lived in Haines since 1974 and have fished for King Salmon for almost all 44 years.

I have owned 3 commercial fishing boats. I gillnetted for Salmon, long-lined for Halibut, Sablefish, and Grey Cod, Dove for Abalone, Sea-cumbers and Sea Urchins and Crabbed in all over Southeast, Alaska.

More recently I have owned two charter boats. I was hired as a fishing guide in Elfin Cove for about 5 years. I still take personal trips out there almost every spring to fish. I have also guided in Juneau, Haines and now have my charter business in Skagway. I'm only trying to give you enough information on me so I can hopefully have some influence.

I have a lot to say but before I bore you with all the other less important information I'll touch on what is important now.

There are now only 3 boats fishing presently Charter fishing out of Skagway. I think there are only 3 Charter boats in Haines also. After the no retention rule for King Salmon happened last year the Charter boats ended up being the only boats fishing for Kings. Normaly we would have some boats from Whitehorse down fishing during the summer but not when they can't keep the fish. I did see some Canada boats later in the summer but they all ran South to fish for Halibut.

The only fish we have to target is here is King Salmon. The water is too deep for Halibut. We do have a few Pink Salmon show up every other year but even on a good year it's very short lived. We mostly are taking our passengers on a scenic fishing trip. We do catch a few Kings but very few for all the time out there.

I had never participated in catch and reliese with King Salmon before and I didn't think my customers would like it but I was wrong. They really enjoyed letting the big fish go and watching them swim off.

I have used barbless hooks or hooks I have crimped the barbs down on for the last 4 summers. If the fish I release is in the water it has much less of a chance of bleeding. My mortality rate is very low and has been since I have gone barbless. Most of the other fishermen up here have followed suit. I have been in the Fish & Game Office in Haines several times in the past three years asking Rich the Sport Fish biologist to implement barbless hooks. He said they have talked about it, but nothing has happened. I know this would have a large impact on the survial rat of our Kings. It would even be a good idea for the Commerial Trollers also. The small Kings they release are very fragile and their gills rip easily. If you Rip a barbed hook out of those small Kings is almost a sure thing they will start to bleed. I think they should make a barbless hooks mandatory.. Hawaii has started to require barbless hooks in some of their fisheries.

They have put in 190,000 small King Salmon up here in Skagway costing thousands and thousands of dollars for them to be raised. This is the last year they are going to show up. After over 20 years of having a hatchery run they have decided not to do it any longer. They are saying it's because of low returns. The real reason is because the fish ladder is high and dry for most of the tide. When the fish can't get up the ladder the seals have learned to hang out and slaughter the King Salmon. They don't even eat them they just kill them for fun like cats with a mouse. These are the last years the fishermen here have, unless we can figure something else out.

From being a gillnetter I know about the Want and Waste law here in Alaska. It's against the law to take the eggs out of a Chum Salmon and throw the worthless carcass overboard. With all those Kings coming back here to Skagway with no place to spawn and not letting anyone to catch them, isn't that a waste of the resource?

Rich told me we had been catching up to 20% Chilkat Kings in the Skagway fishery. The Chilkat River is over 40 miles away. We do some times during the summer go south of what we call High Water Falls or Long Falls when fishing is slow near Skagway. The Falls is about half way to Haines from Skagway. No one from the Fish & Game ever has come out there to take scale samples but I would venture to say that is where most of the Chilkat Kings have been caught in the past. If you closed South of High Water Falls I think our chances of catching any Chilkat Kings we would be releasing anyway would be decreased. The fish we catch South of the falls are usually fatter and have their adipost fins.

The money I make stays here in the State with both my crew and myself. I made a living last summer trying my hardest not to kill any King Salmon and so did the two other boats that fished out of Skagway. Why would you want to put us out of business when we're not killing Kings and the commercial fishermen are Killing them on purpose and making less money doing it.

If we use barbless hooks and release all the Kings, the chances of us killing a Chilkat King is very small. We certainly shouldn't be put out of business if we're willing to release all the fish and not even take them out of the water.

All of the charter boats up here In Skagway and Haines are Alaskan Residents. If you don't let us fish, all of our businesses will fail. Just myself after being reassured by Rich for the last two months that the worst that should happen is the same as last year, no retention of Kings which we can work with. I would ask him everythime I would run into him to see if anything had changed. In the mean time I continued to take 50% deposits on trips I was booking for the summer. At this point I have close to 20 bookings. I can return all the deposits but I don't get the credit card fees back of close to 4%. This year in order to get my guide license I had to renew my Insurance for the summer close to $3000. I won't have money to pay my moorage so I can potentially lose my boat that is worth almost as much as a house. I have a college student showing up in April believing she has a job to help with her college expenses. I could even lose my house. It's really scary because I have no control. It's all up to you folks and I'm not the only one that is in this position.

When they start commercially trolling for Coho's, Chum and Pinks they will be allowed to catch and release Kings so they can make a living. Why not us?

This is a really scary letter for me to write since I have so much on the line. I don't want to get anyone upset, but I feel I should let you know what I have observed over the last 43 years I have been on the water up here.

I should let you know about the increase in Sea Lions in upper Lynn Canal. There are at least 4 or 5 times more Sea Lions than in the eighties and early nineties when I Gillnetted in Lynn Canal. I believe it's because of the hatchery Chum Salmon they are dumping in Lynn Canal. The problem is that the Chums are the third run of salmon to show up. The Sea lions are having lot of babies because they are fat and happy during the Chum run, but they are really hungry when the first run of fish goes by, which happen to be the Kings. I don't know if the early run of Sockeye is still low but I think the Sea lions could be affecting that run also.

I see the Trollers fishing Soapstone and Cross Sound when I go out there in the spring. I believe it is interception fishery. I heard they were only allowed 2 days instead of three. I have seen the board in Brian's office here in Haines, of where Chilkat Kings are caught and a bunch are at Soapstone and the so called hatchery openings. Why let Trollers make a living by killing the Kings and not let us fish and let them go??

When I Guided out there in the late nineties and in 2000, the Troll fishery was closed from April until July 1st. When we would charter fish for Kings before the 1st of July the King fishing was really good. After July 1st when they opened it up for trolling we didn't catch another King for the rest of the summer. That's an example of how efficient the Trollers are.

Now it's open a few days a week non-stop. The fish hold up in the coves there on falling tides sometimes for days waiting for the building tides to give them a free ride to the inside waters. When they open it up even for a few days a week the fish that are hanging out waiting for their free ride get scooped up. I know they say they're catching hatchery Kings but that’s not the only Kings being caught.

There are a lot of small streams farther inside passed where the Trollers are allowed to fish. Some of the streams where I used fish had some really large Kings go up and spawn. Most of those streams are now dead because they had very small runs. It doesn't take very many fish to totally wipe out those runs when they’re not getting passed the fishermen in the spring.

I would like to suggest moving the place where they release the hatchery Kings further inside so they are not intercepted and make it into the inside waters to spawn.

I was the Port Captain for Glacier Bay for several years, and fished in the bay when I had time off. Glacier Bay had those small King streams also, but I don’t think they have fish showing up any more, I believe those runs have been intercepted also.

They also didn't let Seiners fish Home Shore in Ice Strait years ago because it's where the salmon mill. When I worked as an A. B. / Helmsman on the State Ferries for 3yrs I would see the Seiners give mostly Sockeye and some King Salmon they had caught at Home Shore to the people of Hoonah so they wouldn't get closed down. We had pickup trucks headed back to Juneau with coolers filled with Sockeye getting on the ferry.

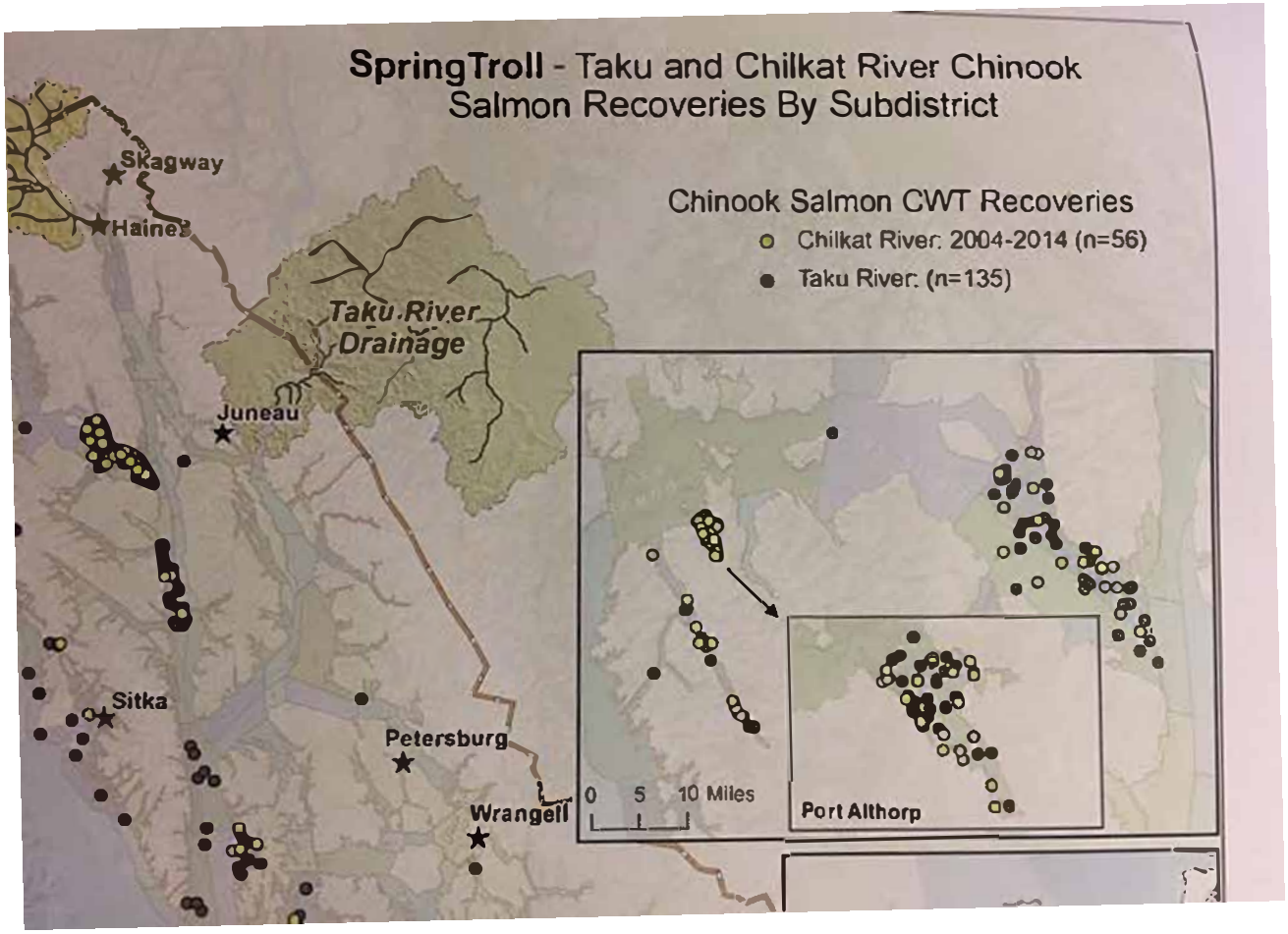
You may want to consider looking at how they managed some of the fisheries in the past. Things don't seem to be headed the right way now. I don't know if it will work, but it might be worth considering. I don't think ever opening up Home Shore is for Seining is a good idea.

I'm not trying to tell the Fish & Game how to should do their jobs. I just think everyone who is fishing should be sending the Fish & Game what they know or have observed out there in the water because they can't be everywhere and we all want the same thing. This is not intended to criticize anyone I’m hoping I can help save the King Salmon run.

This is my livelihood, along with others; this is how we make a living in Southeast Alaska. I hope you can help them reconsider the closure or at least find a solution that could benefit everyone involved.

Thank you for your time.

From: Kenneth Gross
To: DFG, BOF Comments (DFG sponsored)
Subject: What is happening to the Chilkat King Salmon!
Date: Thursday, December 28, 2017 3:58:28 PM
Attachments: PastedGraphic-2.tiff



They are still opening this interception area and slaughtering the Chilkat and Taku King Salmon under the pretense of hatchery openings.. They have to KILL the Kings to make any money. When charter fisherman Catch and release especially with barbless hooks and still feed their families. The fish can still go up and spawn.. It does't make sense to ruin their lives when their not hurting the runs. Thanks for listening..

My name is Kenyatta Bradley I submitted proposal 60, this is my first time participating in this regulatory process I did my best to keep it simple and concise.

My desire is to share my knowledge of the resources in the local Sitka Sound area in an ecologically friendly way. My Plan is to take tourists in local bays close to town to check pre baited and preset crab pots for viewing and educational purposes only.

I have recently purchased a 75 S.E. Dungeness crab pot permit, and with recent fluctuations in crab stocks I am looking to diversify my economic abilities.

Through research of the Guided Sport Eco. Tourism Dungeness Crab Fishery in George Inlet near Ketchikan as well as feedback from local fish and wild life enforcement I understand the need to have a clear separation between this fishery and commercial fishing as well as sport/subsistence fishing.

Therefore I propose amending proposal 60 to not include the commercial register and deregister stipulation. Without this stipulation the proposal should be the exact same as the fishery that has been going on for 2 years plus in Ketchikan.

Feel free to contact me by any means necessary with any questions or comments as I may not be in Sitka until January 15th .

Kenyatta Lee Bradley
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Sitka A.K. 99835
bradleyatta@gmail.com

Comment on Action Plan for Chilkat and King Salmon Rivers

From: Juneau Charter Boat Association

The JCBOA supports option A in district 11.

Please place this in the Public Comments for this issue.

Thank you.

Best Fishes!

Capt. Kevin

Lost in Alaska Adventures, LLC

www.lostinalaskaadventures.com

907-321-1405

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"Like" us on Facebook

Submitted By
Lakota Harden
Submitted On
12/28/2017 2:06:39 PM
Affiliation

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Sitka, Alaska 99835

To the members of the Board of Fisheries,

Growing up in Sitka, Alaska, as a daughter of a Tlingit man, subsistence eating was our way of life. My father, a master fisherman and hunter, worked hard at a weekly 9-5, and spent most weekends fishing and hunting. He kept our freezers full of everything from the sea. We, as children were fishing regularly too. As seasonal harvesters, the ocean provided so much to us and our way of life was based around these times of fishing.

Herring season was always so plentiful, as we spotted the milky water and everyone moved into action for the spawn. Herring was so plentiful, as children, we fished with several hooks to lift them out of the water, 4 and 5 at at time. This was magical, when you are a child. Elders would come with their buckets and take them home for food. The water was alive and moving with so many herring. Everywhere we looked, there were Eagles in the trees, on the shore, and flying overhead. I counted 160 Eagles at one time around us, hunting for herring.

The herring egg harvest was the best, with families joining together to harvest the branches. All these activities were communal with everyone helping each other. As I grew older and the herring became scarce in other areas in the southeast, we worked together to provide our people on other islands with some of our traditional herring eggs, shipping freezer boxes out to elders in those communities.

In 2017, this has drastically changed. We are grieving the loss of herring population, with sightings of whales diving, with their skin peeling, because they are starving. All of life is the Southeast depend on herring for their source of food, from the fish, the bear, eagles, and so many others.

It is our responsibility to protect this important sea life. The dollars that are taking precedence over the herring and salmon populations is a travesty. Yes, we need to make a living but not at the expense of depleting the ocean of the fish. We do not want to be the generation that has forgotten the seasons of the ocean.

Then there is the matter of LAW which stands for Subsistence fishing for the Indigenous Population. It is the law to protect the rights of people who've taken care of this land and waters for centuries.

The Alaska National Interest Lands Conservation Act of 1980 is being violated all around.

The data concerning the herring are NOT showing the actual growth, the sizes, is misrepresenting the actual impact of the losses of the life span of the herring, the salmon.

According to the Alaska Dept. of Fish and Game:

Alaska Department of Fish and Game (ADF&G) studies show that rural subsistence accounts for only 4% of the total fish and wildlife harvest, while 95% goes to commercial interests and 1% to sport users.

Please support Proposal 99, and cap the sac-roe fishery at 10% biomass. These species in the ocean cannot speak for themselves. We must protect them.

Our lives are depending on your decisions you make. Please think of your future generations!

For our future,

Lakota Harden

Grandmother and concerned island citizen

Submitted By
Larry Demmert
Submitted On
12/8/2017 7:26:05 AM
Affiliation
Permit holder

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306 9th st
Craig, Alaska 99921

I support proposal 107 allowing for ponding in Sitka sound on remaining ghl by Nse spawn on kelp permit holders . I support proposal 108 to expand spawn on kelp area in 3b. The department has done this more than once and if the area were larger it would spread out the fisheries, most of the other area is to open to put net pens any where else but by the Alberto's/clam island area and the St Phillips areas. The department also expands and gives the bait fishery early openings , the bait fishery is a 100% mortality fishery and ponding actually increases the fishery by allowing for more spawning surface(nets). I am vehemently opposed to proposal 110 by the department as their methods of determining biomass are constantly under forecasting the herring population in the area. Last year they forecasted 7800 tons for the fishery and they ended up with over 20 miles of spawn and a current year forecast of 16,000 tons which is more than double what they expected back last year. I am also opposed to proposal 112 [redacted]

Submitted By
Lee Gilpin
Submitted On
12/28/2017 1:40:09 PM
Affiliation

As a 150 pot Dungeness crab permit holder I can not support proposal 54. It seems irresponsible to give away any percentage of pots, especially without a mechanism to get them back in the future already put in place.

I do support proposal 235 on slow crab years the crab fleet moves on to other fisheries. Allowing economics to direct the pressure on the crab fishery seems better than the system in place now that is outdated.

Submitted By
Lee House
Submitted On
12/14/2017 11:09:28 PM
Affiliation

Dear Board of Fish,

I am writing in support of Proposal 99 to reduce the sac-roe guideline harvest to 10% of biomass. Herring are a critical forage fish that are better left in the water to support our marine ecosystems, salmon fisheries, and subsistence roe harvests. I strongly support proposal 99 because it would increase the amount of mature herring left in the water where they belong.

Sincerely,

Lee House

Submitted By
Leland Frankman
Submitted On
12/26/2017 11:04:18 AM
Affiliation
fly fishing

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Address
6938 Rain Lily Ct.
#103
Naples, Florida 34109

Sirs, I oppose Proposal 165 currently before you. I am 77 years old and have been fly fishing the Tsiu river since my early 50's almost every September, first in tents and now at the Alaska Wilderness lodge. The Tsiu is one of the premier silver fishing rivers in the world and the several lodges that use it have protected the river and the fish. We kill some fish but rarely take our limit, so most fish are released. The financial benefit to Alaska from fishing there is great. With all the netting opportunities available in Alaska one wonders why netting in the river is permitted at all. I have been wading in the river with my wife when the young commercial fisherman have purposely come so close to us to almost hit us. This is a dangerous situation so that the two uses should be kept separate. The proposal leaving just 1/4 mile of fishable area commercial free is unhistoric and unacceptable.

Proposal 56

Closed Waters in Registration area A

Lewis Hiatt

Box 92

Mile 25 Hollis

Craig, Alaska 99921

lewishiatt@yahoo.com

I support Proposal 56, the area selected for closure is in close proximity to the community of Hollis and the village of Kasaan. Both areas have boat ramps and harbors which are utilized by all residents of Prince of Wales Island. This area has seen a huge increase in personal use crab fisherman from the western side of Prince of Wales due to a larger charter fleet and increase in sea otter numbers. The commercial Dungeness crab fleet would not be impacted by this small increase to the closed fishing area and will allow a sustainable biomass to be harvested by personal use fisherman from all of Prince of Wales.

Proposal 84

Closed Waters in Registration Area A

Lewis Hiatt

BOX 92

Mile 25 Hollis

Craig, AK 99921

lewishiatt@yahoo.com

I support the proposal and have participated in the personal use shrimp fishery as a resident of Hollis for 30 years. Shrimp numbers/catch rates began to decline in 2012 and are now at such low numbers commercial seasons have been closed by emergency order since 2015.

The protected waters of Twelve-Mile Arm and Kasaan Bay have become popular with personal use residents from Craig, Klawock, Hydaburg, as well as Hollis and Kasaan. I ask that these waters remain closed to commercial shrimping indefinitely allowing stocks to rebound so residents may again harvest shrimp for their family's needs. This area comprises such a small portion of District 2 that the impact on commercial users is negligible. Commercial vessels would still be able to fish District 2 in waters not directly adjacent to the communities of Hollis and Kasaan.

Submitted By
Lexi Fish
Submitted On
12/28/2017 12:00:46 PM
Affiliation
Resident of Sitka

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fish.lexi@gmail.com
Address
228 Lakeview Drive
Sitka, Alaska 99835

Dear Board of Fish,

I am a lifelong Sitka resident, mother of two small children, and am involved in multiple commercial fisheries in Southeast Alaska.

I am writing in support of Proposal 99 to reduce the sac roe guideline harvest to 10% of biomass. Herring are a crucial forage fish; the more left in the water the better, in order to support our current and future marine ecosystems and subsistence roe harvests. I strongly support Proposal 99 because it would increase the amount of mature herring left in the water, where they belong.

Treating herring as a forage fish and reducing commercial catch is in the best interest of our community and surrounding region - our current and future ecosystems and the future of our communitites, culture, traditions and fisheries industries rely on healthy fish populations - conservation of herring is critical to that important mission.

Thank you very much for your time,

Lexi Fish Hackett

Sitka, Alaska

Submitted By
Lisa Honer
Submitted On
12/28/2017 4:47:26 AM
Affiliation
Tsiu

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47669 County Highway 14
New York Mills, Minnesota 56567

RE: Tsiu River Proposal 165

To Whom It May Concern:

I am writing to express my extreme opposition to Proposal 165. Sportsman fishing is a backbone of the Alaskan culture and brings significant economic benefits to the area. Sportsmen are drawn by the taste of wilderness, to experience the untamed natural beauty and for the world class fishing. While I understand the purpose of commercial harvesting; you must at the same time, maintain the integrity of the Alaskan experience and safeguard a healthy salmon population. I have been a yearly visitor to the Tsiu River for the past 3 years. I have seen first hand the perils to nature and disregard to the sportsmen's experience from commercial harvesting; even with the 1/2 mile reservation for the sportman fishing. It is my firm belief that any further impingement on the sportsman's fishing will not only violate the integrity of the experience but also potentially jeopardize the health of the salmon population. The closed area to commercial fishermen should remain at a minimum of 1/2 mile.

Thank you for your consideration,

Lisa Honer

Submitted By
Lisa Sadleir-Hart
Submitted On
12/28/2017 9:54:51 PM
Affiliation

As a long time Sitkan, I want to express support for reducing the herring fishery quota for 2018. Herring are a key indicator of a healthy eco-system and declining numbers in Sitka Sound point to a faltering, at-risk environment. The amount available for harvest needs to be drastically reduced and the spawn carefully monitored. Without herring, a host of other species will also falter from salmon to whales. It's time for us all to work to protect God's sacred creation and reduce the herring quota for 2018.

Submitted By
Louise Brady
Submitted On
12/27/2017 10:17:22 AM
Affiliation

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Yaayeetaawdulgein yoo xat duwasaakw. Kiks.adi aya xat. Kaxatjaa Shaa naa xat sitee. My Tlingit name is Yaayeetaawdulgein. I am Kiks.adi from what is now known as Sitka. We Kiks.adi are known as the Herring Ladies. We have 2 "histories" that tell of our special relationship to the Herring. One is about a woman who would call the herring to her in the spring time. It is said the first place the herring would spawn in all Southeast Alaska was at the Herring Rock that was located where the Totem Square Inn now sits. This story shows the understanding we Tlingit have of the herring and its importance to the ecosystem of Southeast Alaska. The second story is that of greed. Of the woman who harvest herring and refuses to share with even her own family. We also have a treasured Chilkat Robe with the Herring Rock design on it and one of our clan houses uses the Herring Rock design and is known as the Herring Rock House. All of this shows our spiritual connection to the herring.

Futhermore, the Board of Fish is invited to join us Kiks.adi in a celebration of the herring-Yaaw Koo.eex'-on Janauary 14, 2018 where we will celebrate the spiritual connection to the herring with our songs, dances, and stories.

Those of us who grew up anticipating the arrival of the herring and of eating fresh herring eggs off the hemlock branches is that our precious herring and their eggs are being exploited to the point where we can no longer share the communal experience of harvesting and storing our herring eggs. I have many fond memories of sitting around my mother Isabella Brady's kitchen table with my sisters, eating fresh out of the water herring eggs and cutting the branches and storing the eggs for family dinners, our Tlingit ceremonies, or for community Thanksgiving and Christmas dinners. Also, of being able to ship a box of fresh herring eggs to our friends in Barrow, who, in return, would send us muktuk for community dinners.

People have referred to herring eggs as a delicacy...they are not a delicacy...they are a staple food for our way of life of sharing with each other. It never occurred to me until the last few years, that if the ADF& does not start managing the herring roe fisheries in such a way that allows for a plentiful herring egg harvest...this precious food will be gone to us. It is unthinkable that I will not be able to share this food with my grandchildren. I never took photos of all the times we sat around the table bagging our eggs...or all the times we had herring eggs on the plate for our traditional ceremonies...or the look of pure joy as my granddaughters enjoyed the first taste of herring eggs in the spring. But if the management continues down the current path, all we will have left is photos of "how we used to get herring eggs."

It has been 20 years now that the Sitka Tribe of Alaska has been warning of dangerously low herring stock levels. As it stands now, Sitka has the only viable herring stock in Southeast Alaska with Auke Bay, Kashakes; Seymore Canal, Hobart Bay, and Tenakee all being fished out. In the case of Aukey Bay, the ADF& finally shut down fishing there in 1982. The first "significant spawn" finally returned in 2014. Sheet'ka Tlingit do not want the same thing to happen here. It is more and more difficult for us to get the eggs on hemlock branches. The gatherers I have spoken with all say that they go and lay out their branches and go back to check only to have very thin eggs or none. There is no longer the ability to share with elders and family.

My brother, Ralph Brady, who was the primary subsistence gatherer for our family for years, recalls my mother, Isabella Brady, sending him to Sealing Cove in the 60's with a bucket to go get fresh herring. He remembers saying to my mother, "But I don't have line or a hook.". My mother's response, "It's okay. Just lower the bucket on the rope into the cove and bring it up." When he did that, it was full of herring.

My brother Ralph also tells of times when he didn't even have to go out on a boat to lay hemlock branches. He says he would just set them on Japonski Island.

Chuck Miller of Sitka, "Last year was so bad. We laid our branches and what we got was bad. Really thin."

Ed Young of Sitka, "There are so many places we used to lay our branches; Halibut Point Road, Sam Sing Cove, Alutkena, Deep Inlet, Sandy Cove, across from Camp Coogan.

I hope and pray you would make all future decisions. That if our tables and freezers continue to be void of herring eggs, it is not just losing a food source…but a treasured way of life. It is difficult to explain to someone who has not had this experience of the communal table what this means. As I said previously, I wish I would had thought more deeply and recorded the importance of these times and experiences. We Tlingit have so little left of what was our home and our experience on these lands and waters...please assure we keep this wonderful taste and experience.

United Nations Declaration on the Rights of Indigenous Peoples

To continue to allowthis wasteful fishery would be in violation of:

Article 20 1. Which states: Indigenous peoples have the right to maintain and develop their political, economic and social systems or institutions, to be secure in the enjoyment of their own means of subsistence and development, and to engage freely in all their traditional and other economic activities

2. Indigenous peoples deprived of their means of subsistence and development are entitled to just and fair redress.

Article 25 Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard.

Article 26 1. Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired. 2. Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired. 3. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned.

Submitted By
Maia Mares
Submitted On
12/14/2017 3:16:14 PM
Affiliation

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I support Proposal 99, which would leave more herring for traditional users and the whole ecosystem. I think we need to be much more conservative in our herring management. These fish are much more valuable left in the ocean than removed for sac roe. Our local communities depend on herring eggs for important subsistence and cultural values. Herring are a forage fish, and therefore crucial for the health of our ecosystem, which supports salmon and other larger fisheries we depend on. We need to take care of our herring, and that means more conservative management. I think we must take historical and traditional knowledge into account and listen to Alaska Native elders who are telling us that the herring are in trouble. This is why I support Proposal 99.

Submitted By
Marian Allen
Submitted On
12/26/2017 12:05:57 PM
Affiliation
Ms.

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829 Pherson Street
Sitka, Alaska 99835

I am writing in support of Proposals 98 and 99, proposals that would revise the Sitka sac roe fishery management to be more conservative.

I lived on Kasiana Island for 16 years, from 1980 – 1996. In the early 1980s I remember collecting herring in the salt chuck that faces north on our island with my daughter. We simply picked them up at low tide and dropped them in a bucket. I do not collect a lot of eggs for personal use, but I do enjoy eating them while they are on the beaches. Our beaches and intertidal zone would be inches thick with eggs. People now are surprised to hear that.

I have listened to a number of people over the years who have different interests and perspectives on the sac roe fishery because eating herring eggs in the spring is important to me. I am sympathetic to the economic importance of the commercial fishery to Sitka, to the permit holders and to subsistence needs. A balance needs to be made between the monetary economic needs and the constitutionally guaranteed needs of subsistence gatherers. However, my greatest concern is environmental. Herring feed all our major fish. If the herring disappear or even are significantly diminished in numbers, our salmon, halibut and black cod will suffer and our commercial fisheries will suffer dire consequences.

From ADF&G I learned that the models that are used to arrive at harvest levels have no way of factoring in environmental conditions such as ocean acidification or warming water. We know that the ecosystem is changing in dramatic and unpredictable ways so managing the fishery conservatively only makes sense. All user groups need herring: subsistence users, sac roe permit holders, Sitka's economy, salmon, halibut, black cod, and all the other life forms that depend upon them.

These are the reasons I urge you to support proposals 98 and 99. Conservative management of Sitka's sac roe fishery is essential and must abide by the constitutional guarantee that adequate herring is available for subsistence use.

Submitted By
Marie Graham
Submitted On
12/16/2017 8:57:27 AM
Affiliation
pilots partner

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I am writing to oppose Prop. 159. Here are a few reason why the proposal should not even be up for conversation. All pilots are aware of the laws such as fishing in closed waters . [redacted]. All fisherman have the option of hiring a pilot if the fisherman decides not to hire a pilot he does not turn around and request a proposal to stop all other fisherman from using pilots.The pilots about 6 of them know the rules and have never broken laws they also have families they feed and take care of . This is a business and fish and game should not listen to the fisherman who have decided not to use an airplane [redacted]. I still believe this is a competitive fishery every fisherman has a right to run his operation as he or she sees fit . Thank you for your consideration. Please perserve one of the most unique jobs in Alaska the fish spotter. Thanks

Submitted By
Marta Martinsen
Submitted On
12/16/2017 8:45:51 PM
Affiliation

For the last 42 years my husband and I have lived in SE Alaska. My husband started a commercial fisheries business in 1976 and retired in 2010 leaving our sons to continue fishing. We have seen the Juneau herring fisheries close and in 40+ years it has not been reopened. We have seen a decline of the herring balls on the depth finder. There is an increase of sperm whales and sea lions taking advantage of fisherman's catches and smaller King Salmon size. I think this is all due to the lack of a food source.

People who have lived in Sitka since the 1950's and 1960's talk about how there used to be so many herring that you could "walk" across the backs of herring. Or they would scoop buckets of herring from the bay. There were no hooks involved, only buckets.

Herring is the bottom of the food chain. Herring feeds small fish, large fish, ducks, sea birds, Eagles, sea mammals including whales and people. 1993 an estimated 8000 murres died of starvation in Northern Alaska. This year thousands of California Sea Lions were unable to feed their pups who starved. The 10 year average spawn in Sitka Sound went from 61.4 nautical miles and last year there was 54.3 miles of spawn. Commercial Herring fisheries may not be sustainable at the present rate.

I would like a statewide moratorium on the Herring Fisheries, but that may not be a realistic option. So I am proposing the Sitka Tribes proposal number 99 that reduces the Sitka Sound 20% take to 10%. Our oceans are struggling with acidity, warming waters, radioactivity and we need to assist these animals by not depleting their food source.

Please seriously consider reducing the Sitka Sound Herring Fisheries from 20% to 10%.

Submitted By
Martha Sharp
Submitted On
12/28/2017 10:24:50 PM
Affiliation

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To: Board of fisheries concerning Southeast shellfish
From: Martha Sharp
Concerning: Proposal 84

Please close all of Kasaan Bay and 12 mile arm waters in district 2 to commercial pot shrimp fishing.
I have been a resident of Hollis since 1979 and have enjoyed subsistence shrimp fishing in 12 mile arm. Since about 2010 the shrimp began not being as available as in years past. In the last three years, the harvest has been very poor with almost no shrimp to subsistence harvest.
Thank you for your consideration,

Martha Sharp

mail.com

Hello, I'd like to show support for proposal 84. I am a Hollis resident. My wife and I have used 12 mile arm as a food source for many years and would appreciate it if the shrimp levels were not depleted.

Thank You, Matt Beer

Comments on Some regulation changes proposed to the Board of Fish (BOF)

From: Matthew Donohoe, Po. Box 3114, Sitka, AK. 99835

To: Chairman of the BOF and BOF Members

Below are comments on some of the 2018 BOF proposals. I will try to keep this short in the hope that among the mountain of material before you my comments will be accessible.

Proposal 123: OPPOSE.

This proposal has been before this Board before. It seeks to increase the size of retained lingcod in the commercial fishery to equal that of the sport fishery. I assume it is based on a misdirected fairness ideal. The 30" limit in the sport harvest is not biologically based. The department set this limit to keep sport harvesters from exceeding the allocation (which is in pounds). To increase the size limit in the commercial catch may actually damage the resource because the larger lingcod are females and it would force commercials to target females.

Proposal 134: OPPOSE.

Territorial Sportsmen (TS) in arguing for this proposal says, "...it is imperative that we take every possible conservation measure to assure that every spawning king salmon reaching our coast makes it to the rivers." So closing commercial fishermen in all of Districts 9, 12, and 14 when the Juneau area is closed but not closing those areas to Territorial Sportsmen at the same time is taking, "every possible conservation measure"? It's interesting that, in the name of conservation, TS considers themselves beyond the conservation actions they recommend.

The Board of Fish should reject this proposal and not agree to tie ADFG's hands by preempting the Department's options concerning conservation.

Proposal 178: OPPOSE.

Seeks to move the Sitka Sound winter troll line in approximately 10 miles on the Kruzof Island shore when winter catch reaches 30,000 kings by March 1. The proposer argues "It is unfair to the rest of the Southeast communities to suffer the winter troll season closing so early due to extreme high harvest rates occurring in the Sitka winter fishery." And "The best month for access to winter kings is April for the fishermen who live South of Sitka."

The data shows that high harvest rates were occurring in districts South of Sitka in the winters of 2015 and 2016 as well as in D113. In those years there was an unusual high abundance of small (but legal) fish on the West Coast. Though the season closed early in 2015 and 2016 (including in Sitka) the Districts south of Sitka in these years were within or above their historic percentages of the winter king catch.

It should be noted that around half of the trollers that fish Sitka Sound in the winter are not from Sitka. Though April is the best month for communities South of Sitka it is also the most productive winter month in D113 as well.

This proposal seeks to reallocate a portion of the winter fishery, which was developed in Sitka, to other communities. The Sitka folks also established the original fresh markets for winter king salmon.

Moving the winter line in 10 miles is a draconian change to what are the original winter troll grounds and is not justified by the data. It constitutes a reallocation of the winter fishery to other communities which, coincidentally, were late to the game.

Proposal 179: OPPOSE.

This proposal is very similar to 178 but appears, at first blush, to be more egalitarian. All of the arguments presented above against Proposal 178 apply here as well.

The proposal suggests reductions in the winter troll fishery (WF) in area for all districts on the West Coast of SEAK and depends on two kinds of triggers. The first is general to all districts (30,000 fish caught by March 1st). The second is specific to the Districts mentioned and they are assigned individual percentage triggers.

The reallocation aspect of this proposal becomes obvious when looking at ADFG's data of historic percentages by District in the WF (below).

In District 104 (which is in the Craig area and is one of the areas Craig residents principally fish in the WF) the proposed trigger is 8% of the winter catch. In District 104 (no data from 2017) 8% of the WF has never been harvested. The highest % for D104 occurred in years 2006 and 2007 when 6% of the total WF was caught. The 20 year average from 1997 to 2016 for D104 is 2.1%. This proposal from the Craig AC sets the proposed trigger at four times the historic average for the Craig area.

Similar 20 year historic percentages for the entire WF (not just till March 1) are significantly smaller than those proposed as March 1 triggers for Districts 105, 109, and 183. The 20 year average % for D105 is 6.35%, for D109 it is 4.65%, and for D183 it is 8.3%.

The 20 year average for D113 (Sitka) is 64.65% of the WF. The proposed trigger is 65%.

It is highly unlikely that any of the districts mentioned in this proposal will ever be reduced under the regime proposed except, of course, D113.

This proposal is a sly and cynical attempt at reallocating fish and should be rejected by the Board.

Winter Troll % of Regional Harvest by District: 1995-2016

Troll Season	101	102	103	104	105	106	107	108	109	110	111	112	113	114	183
1995	0%		2%		5%	1%	1%	1%	7%	10%	0%	0%	58%	13%	1%
1996	0%	0%	0%		5%	2%	2%	3%	5%	23%	0%	1%	35%	21%	1%
1997	0%	0%			6%	1%	0%	1%	4%	5%		0%	72%	11%	1%
1998	1%	0%	0%	1%	3%	0%	0%	0%	3%	5%	0%		79%	8%	0%
1999	0%	0%	1%	0%	6%	1%		0%	6%	4%		0%	74%	6%	1%
2000	0%	0%	1%	0%	4%	1%	0%	0%	4%	2%	0%	0%	80%	4%	3%
2001	0%	0%	1%	0%	4%	0%	0%	0%	3%	3%	1%	0%	70%	7%	9%
2002	0%	1%	1%	1%	4%	1%		0%	6%	1%	1%		71%	5%	8%
2003	0%	1%	2%	1%	3%	1%	0%	1%	2%	2%			74%	2%	9%
2004	0%	1%	2%	2%	9%	2%	1%	1%	8%	4%		0%	54%	6%	10%
2005	1%	0%	3%	4%	7%	1%	1%	1%	4%	3%	0%	0%	64%	4%	8%
2006	1%	1%	1%	6%	8%	1%	1%	1%	5%	3%	0%	0%	58%	4%	9%
2007	2%	1%	2%	6%	6%	1%	1%	2%	5%	2%	0%	0%	59%	3%	7%
2008	2%	1%	2%	4%	13%	2%	1%	2%	6%	5%	0%	1%	43%	4%	13%
2009	1%	0%	2%	1%	7%	2%	1%	1%	5%	5%	0%	1%	57%	5%	12%
2010	1%	1%	3%	2%	5%	2%	0%	1%	3%	6%	0%	0%	63%	3%	9%
2011	2%	2%	4%	3%	7%	2%	0%	1%	4%	5%	0%	0%	58%	2%	12%
2012	1%	1%	1%	2%	9%	2%	0%	1%	6%	4%	0%	0%	60%	3%	10%
2013	2%	2%	4%	4%	13%	2%	0%	3%	8%	2%	0%	0%	42%	1%	17%
2014	1%	1%	1%	1%	4%	1%	0%	1%	5%	3%		0%	69%	2%	10%
2015	0%	0%	1%	1%	5%	1%	0%	1%	3%	3%		0%	71%	1%	11%
2016	1%	1%	1%	3%	4%	1%	0%	1%	3%	2%	0%	0%	75%	1%	7%

Proposal 181: OPPOSE.

In normal times I support what is called 60/40 (moving 10% of the summer troll king catch from July to August). This year, because of conservation issues with Alaska wild stocks, I don't support 60/40. In light of the arbitrary denial of the August opening [redacted] in the 2017 season it could place another 10% of the summer king season at risk.

Proposal 183: SUPPORT.

I support this proposal and think it should be considered housekeeping. In the past the Department recommended moving west the Westward twin of the two markers representing the closed area in front of the Situk River because the river mouth was moving westward. The eastward twin should have been moved a corresponding distance westward at the same time. It wasn't. Not moving the east marker represents a loss of several miles of fishing ground to the Yakutat fleet for no reason.

Proposal 185: OPPOSE.

Another Tri-Annual favorite. This proposal seeks to create a personal use gillnet fishery on Chinook and Coho. There are already too many demands on SEAK Chinook and a personal use gillnet fishery would be entirely new with negative Pacific Salmon Treaty implications. More than adequate opportunities to harvest king and coho salmon exist with the use of sport poles. Someone in SEAK who can't catch enough salmon with a sport pole for personal use is not trying or has a hidden agenda.

Yours
Matthew Donohoe

Comments on the Unuk River Action Plan (UAP)

To: Chairman of the Board of Fish and BOF Members, dfg.bof.comments@alaska.gov

From: Matthew Donohoe, PO. Box 3114, Sitka Ak, 99835

Mr. Chairman,

I will try to keep my comments brief in part because like everyone else I've had little time to study this plan over Christmas and because unlike the NBA comments to the BOF are better if they're short.

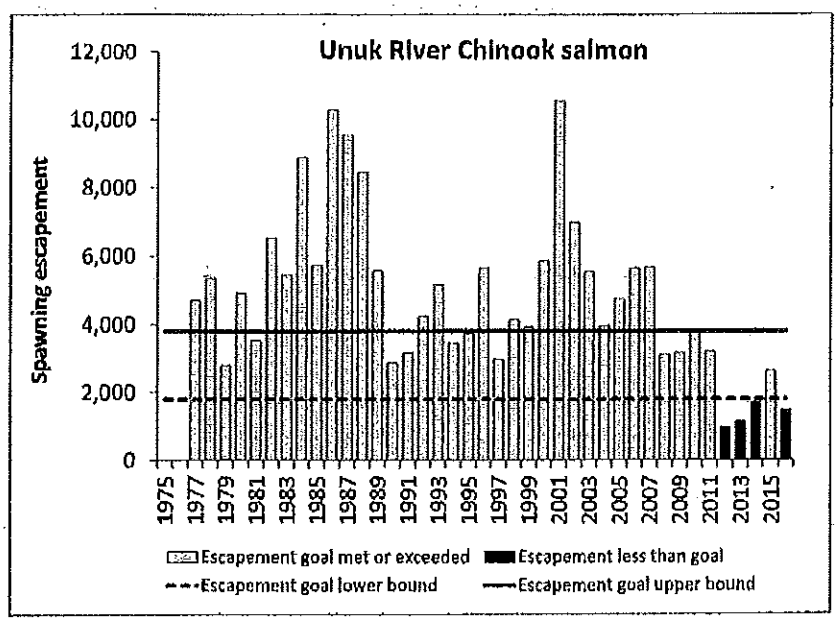
1) This winter the Department has often repeated a form of the following statement which is quoted from page 2 of the UAP under the title **Escapement**:

   "From 1977 to 2011, the Unuk River met or exceeded the lower bound of the BEG every year. From 2012 to 2017, the Unuk River missed the lower bound of the BEG in 5 of the last 6 years, despite restrictive actions taken in the sport and commercial fisheries since 2014."

   On page 3 under the heading Escapement Goal History one finds that the Department in 2009 nearly tripled the lower end of the BEG from 650 large Spawners (LS) to 1,800 LS. The Department more than doubled the upper range of the BEG from 1,400 LS in 2008 to 3,800 in 2009.

   One of the years, 2001, of the base line (1982 to 2001) which was used to establish the new BEG had the largest return on record. The period from 1982 to 1989 had the greatest collective Unuk returns on record. (Data from "Review of Salmon Escapement Goals in SEAK, 2017". Fisheries Manuscript Series NO. 17-11, Appendix Figure A3). That baseline didn't suffer the negative effects from sport lodges that exist today but didn't then. These lodges are north of Clover Pass on the Unuk corridor and their catch is not sampled by the Department.

   Had the 2008 BEG been in effect in 2014 and 2016 the returns in those years would have been **above the upper boundary of the BEG**. Even the dismal lowest recorded return of 2012 would have been above the lower boundary. **Had the 2008 BEG been in effect the Unuk would not be a system of concern today.**



Appendix Figure A3.–Estimated Unuk River Chinook salmon escapements, 1977–2016, and biological escapement goal range of 1,800–3,800 large spawners.

Is it possible that the BEG is set too high? Is it also possible that Sports Division needs to do more sampling?

2) **Coded Wire Tag** (CWT) data show no Unuk River Tags in the Ketchikan sport fishery in 2016 and 2017. In 2017 there were over 1,000 king salmon turned in to the annual Ketchikan Derby. Zero Unuk tags from 1,000 large derby kings (Spawners?) caught in Unuk River corridors seems unlikely.

UNUK CHINOOK												10 yr	5 yr	
Fishery	Quadrant	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	07-16	12-16	2017
Sport Early[5]	NW	124	16	69	111	73			81		161	64	49	
April-July	NE	0	0	0	0	0	0	0	0	0	0	0	0	
	SW	16						30		32		8	12	
	SE (KTN)	118	35	190	236	119	250	102	21	47		112	84	0
	Total	258	52	259	347	192	250	132	102	79	161	183	145	0
Sport Late[6]	NW					39						4	0	0
August	NE					35						4	0	0
	SW		0	0	0	0	0	0	0	0	0	0	0	0
	SE	88			35							12	0	0
	Total	88	0	0	35	75	0	0	0	0	0	20	0	0

Is it possible Sports division isn't sampling enough?

Last August Trollers were not allowed their second opening and forewent 32,000 king salmon. The data supporting that closure was from genetics. Concern over no Unuk tags from the Ketchikan sport harvest caused trollers to question that information. The department assured us that the genetic data tells a different story and **indicated that genetic information showed a significant sport harvest of Unuk stock in the Ketchikan area. Yet the gear catch percentages of Unuk River fish in the UAP are based on CWTs.** Why is this?

Why were Trollers closed based on Genetic data last August but there is now a proposal based on CWT data for a delayed July king opening this coming season? CWT data and genetic data can contradict each other as it did last August. CWTs indicated a lower catch of AK wild kings in the troll fishery in August than in July but the genetics said otherwise according to Deputy Commissioner Swanton.

What is this cherry picking of data from the Department?

3) **Delayed July 1st opening**. In the UAP Troll Options B and C king fishing is delayed by 1 week and 2 weeks respectively. As far as I can tell other fisheries are normalized by July 1st. ADFG informs us that Alaska wilds are available to harvest in May and June. The genetic data indicates that later in the summer more AK wilds (feeders for which trollers were closed last August) are available then in July. Because trollers rarely (if ever) fish kings in July after the 10th **there is no modern data on the makeup of harvest later in the month.** So why move the troll king opening back one or two weeks? Besides this almost all troll harvest of king salmon in the summer occurs on the ocean hundreds of water miles away from Alaska's wild systems.

   5 AAC 29.050 (c) states "Before 1981, the commercial salmon troll fishing season was year around with a winter season of Oct 1 through April 14 and a summer season of April 15 through Sept 30. Since 1981 the opening of the summer season has been delayed by one month to an opening date of May 15 to provide for a three-cycle king rebuilding program." Today the summer season doesn't open until July 1.

In Addition the department is intending to deny trollers harvest rights to hatchery fish, paid for by trollers, in April, May, and June. At the same time the Department intends to allow other gear groups access to these fish including sport fishermen who pay nothing for these kings.

As stated in Alaska Regs Trollers have been rebuilding AK wild king stocks since 1981. In the meantime another gear group was born and now, for some reason, that group can target kings in April May and June in unlimited areas but trollers can't fish the postage stamps provided by the Department.

4) **Maps:** There are two maps depicting troll areas. One troll map says that trollers fish all of Southeast Alaska. The other map depicts troll hatchery areas in June. There is no map indicating that sports fishing occurs in all of SEAK all year but the troll maps imply that trollers fish king salmon in all of SEAK all year rather than 1 -2 weeks in July and restricted areas the rest of the time. There are also more "traditional" gill net areas than depicted by the maps (figure 3).

   This could be deceptive to someone who doesn't know the areas and the fisheries.

Yours

Matt Donohoe

From: Matthew Donohoe, PO. Box 3114, Sitka AK, 99835

To: The Board of Fish, dfg.bof.comments@alaska.gov

Mr. Chairman and BOF Members,

There are two more items that I believe should be discussed which are not Action Plans or Proposals.

The first is Marked Select Fisheries (MSF). Why is ADFG pursuing MSF without vetting the concept before the BOF? On whose authority is the State of Alaska lobbying the Federal Government for funds to do this? There has been no proposal put before the BOF by the Department for MSF.

Why did [redacted] usurp the BOF approved management plan and close trollers last August denying them 32,000 treaty kings to return an estimated 160 kings to Alaska's wild system. The State of Alaska had already agreed to the harvest of these fish at Treaty. It's estimated that this cost the SEAK region $10,000,000 in much needed revenue. Does the Board intend to allow this with no comment?

Yours

Matt Donohoe

Submitted By
Matthew Jackson
Submitted On
12/14/2017 7:50:44 PM
Affiliation
Concerned Citizen

Phone
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1403 Halibut Point Rd
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~~Dear Board of Fisheries,
The Herring Sac Roe fishery has a long and contentious history. Since the tribal community starting writing resolutions to stop the herring fishery in lower Chatham decades ago, subsistence users have been given excuses for one reason the commercial fishery must happen or another. But every conscientious examination of the issue shows that conservation and subsistence use must take precedence over a commercial sac-roe fishery.

Everyone wants a piece of the pie, but the rule of law says that whoever had the pie first should keep it. When it comes to herring, the Tlingit people have had a relationship with herring since time immemorial, herring is their pie to share, and for decades the tribal community in Sitka has demanded more conservation of the herring.

The fundamentals of conservation dictate that we should err on the side of caution when it comes to managing populations. Herring fisheries up and down the Pacific Northwest Coast have collapsed, and the Sitka Sound population the last sizable population. The fundamentals of fishery management dictate that we manage this last viable population conservatively.

Herring play a fundamental role in the marine ecosystems that support all of Alaska's fisheries. Yet the sac-roe fishery is extremely wasteful. Subsistence users have always known, and Alaskan statute dictates, that wasteful harvest is unethical. Yet the sac-roe fishery is mostly waste. It's like killing herds of deer but only harvesting the livers. Everything but the roe is ground up into fish meal for fertilizer or worse, to feed farmed fish, including BC salmon farms. Common sense would dictate that these herring are more valuable feeding endangered wild Alaskan salmon than supporting the threat of farmed salmon.

For these reasons, based on traditional knowledge that stretches back thousands of years longer than ADF&G's limited data, based on decades of testimony from Sitkans of every race, I urge the board to approve Proposal 99, to cap the sac-roe fishery at 10% of biomass.

Sincerely,

Matthew Jackson

Submitted By
Max J Kritzer
Submitted On
12/24/2017 8:57:45 AM
Affiliation

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500A Pherson St.
Sitka, Alaska 99835

I support Proposal 99 to reduce the maximum harvest of Sitka Sound herring fomr 20% to 10%, and Proposal 106 to expand the waters preserved for subsistence harvesters. Subsistence is not merely a way to put food on the table, but an essential way of life that should not be ignored.

Thank you

Submitted By
Max Worhatch
Submitted On
12/16/2017 11:44:35 AM
Affiliation
Dungeness crab permit holder

Proposal 54. OPPOSE. While I agree that areas that have not been effected by sea otter predation have become saturated with gear, calling for a reduction of gear is not a responsible choice in that it does not address the cause of the problem. Areas that hold a viable population of marketable crab will still see large amounts of gear. Less gear will likely result in shorter soak times, likely increasing handling and mortaility of soft and sub-legal crab. This fishery has a unique challenge that cannot be addressed or fixed with restrictive measures imposed on the fishing fleet. As more area is lost to sea otter predation, gear will become even more saturated. If adopted, this proposal would set a precedence of gear reduction that isn't sustainable. Past gear reduction by the board of fish in the past have not resulted in a rebound in stocks, or improved the economic viability of those fisheries. I think it is important to retain the fishery as is. Dungeness stocks have always been cyclitic. In the event of a high abundance of crab, it is important to retain our ability to harvest the maximum sustainable yield. The loss of 20% of our gear could result in a loss of revenue for coastal communities, fishermen, processors, and the state through raw fish taxes in those years of high abundance. dungeness crab in southeast is an important fishery. It is a vital part of a diversified fleet's business plan.

Proposal 55- OPPOSE. This proposal, while inventive, would consolidate operations. It would also change the make up and effciency of the current fleet. Over time, it might reduce the actual amount of gear, but current CFEC regulations prohibit fishing more than one permit by one person. This would require a vessel to have multiple permit holders which would probably preclude it from achieving its intent.

Chairman Jensen and Board of Fishery members;

Please find my comments on proposal 235 below. I would like to thank the board for taking this proposal on. I had every intent on submitting a similar proposal, like I did for the 2015 cycle, but I found myself distracted by finfish proposals, and I simply forgot. Chairman Jensen encouraged me to submit an ACR. Your willingness to take this issue on is encouraging, not only to me, but the vast majority of permit holders in this fishery that I have spoken with concerning this management plan. My only concern at this time is that because this proposal was put forth late, some AC's and individuals may not have been aware of it, and therefore may neglect to comment.

Proposal 235-SUPPORT Having been a participant in this fishery for 27 seasons, I am a firm believer in the 3 S management as adequate to manage this fishery. If this proposal were adopted, southeast Alaska would still probably be the most conservatively managed Dungeness fishery on the planet. We currently have the largest minimum size limit at 6.5 inches. This ensures no retention of breeding stock. Virtually all other Dungeness stocks on the west coast have a minimum size of 6.25 inches and have been successful for decades. Like other areas, we take only male crab. This ensures that fertile females will available to ensure future generations of crab. Currently in southeast Alaska, we have a four month season, June 15- August 15, and October 1-November 30 for the bulk of the region. Districts 1 and 2, and parts of 13, have a five month winter season, starting October 1 and ending February 28. These areas are generally only fished into November as processors close their doors due to low volume and effort. The vibrant successful coastal fisheries of California, Oregon and Washington seasons start as early as December 1 and continue through the month of August.

The current management plan is the result of a Board of Fisheries directive to come up with a management plan since there was no biomass estimate available. A task force was formed. In discussions with stake holders on the task force, they felt that the probability that an early closure due to poor landings in the first 7 days of the fishery were miniscule. Basically, the long term average season, 2.25 million pounds, became the goal to prosecute a full season. The department would take the first weeks catch, compare to the first weeks catch average, to predict a final catch estimate for the entire season. It was a pretty simple abundance based formula that worked well for a number of years. Even with some low cycle years, a full season was prosecuted. What wasn't foreseen in this management plan was a loss of commercially viable area due to sea otter predation. The long term averages used in the plan include fishing effort in areas that are either no longer used, or at best sparingly by few fishermen. Since then, we have lost virtually all of district 4 and 5, most of district 9, vast portions of district 6 and 14, and parts of district 10 and 12. To prosecute a full season districts 15, 11, what's left of 10, 9 and 6, 8 and 7 must be able to produce enough in the first week that was once spread over these foregone areas. It is apparent that in low cycle years like 2013 and 2017, the only years that there has been an early closure, that those areas cannot meet that poundage goal necessary to prosecute a full season. It is also important to note that the poundage of districts 1 and 2, while a part and parcel of the full poundage consideration of the season, cannot contribute to the formula of the first weeks catch.

It's my belief that the plan has also increased the pace of the fishery. Since the fate of a full season is based on the first week's deliveries, in low cycle years the onus is on fishermen to delivery as many crab as possible the first week. This may have led to more soft-shell retention by some, since it will be pounds on a fish ticket. Fishermen fishing in remote locations, are encouraged to unload to tenders to get deliveries in and continue fishing. Excessive handling reduces quality through leg loss, and increases the risk of dead loss.

Economically, this management plan is a millstone. It throws an uncertainty into the fishery that needn't exist. In 2013, for the first time, I chose not to participate in the summer fishery because I knew that making the threshold was probably not a reality and I did not want to have to go through effort and expense associated with trying to juggle two fisheries and attending the birth of my fourth child on the 17th of July. I had no way of knowing when the fishery would close if threshold was not met. Dungeness is an important and major part of my income most years, and it was a hard decision to make. It was foregone income, and a choice I made and accept. Without the management plan, and the guarantee of a full two-month summer season, I would have fished, and made some money, though probably not a lot. In 2017, I fished for about 7 days in the summer. After a few phone calls to friends fishing in other areas and talking to processors concerning current landings, I put my gear on the beach, as it was apparent that threshold would not be made. I had no idea when the season would close. The department couldn't tell me, because they didn't know. Had I known that it would close July 25, I probably would have kept on. I was making money. It wasn't as hard of a decision, since salmon prices were high and there were fish around, but again, I missed out on income I rely on due to this flawed plan. That's just my story. There are people who fish in Bristol Bay, who seine in southeast, trollers, gillnetters, guys who deckhand in the bay or seiners who also had to make choices similar to mine. Then we have the people who rely on this fishery alone as their primary income. They have to make the decision to risk running and looking for crab in a place that maybe nobody had gotten to, but not knowing when the season would end made that a huge risk. In low abundance years, effort in this fishery wanes, regardless if there is a closure or not. A large percentage of the participants are involved in other fisheries, and either do both or stack their gear. This allows those who are more dependent to pursue the fishery and capitalize on crab that will emerge later, or find some area that those who are doing other things missed. The foregone economics in this fishery with this particular management plan extends beyond fishermen. Processors have to gear up for a season just like fishermen. There are costs associated with that. Municipalities lose sales tax revenue from foregone bait sales, fuel and gear. Local businesses forgo sales of gear and hardware associated with the fishery. The state of Alaska and municipalities lose raw fish tax revenues. Coastal communities, especially Petersburg and Wrangell, but also Haines, Juneau, Sitka, and Ketchikan, all take a hit when this management plan mandates an early closure.

In 2013 and 2017, following the early closure of the summer fishery, there were good fall seasons. Some may point to this and say that closing early on slow summer will lead to a better fall, so this plan works. In 2013, The summer season ended 8 days earlier than usual. While the information is confidential, it is important to know that fishermen were catching crab that summer that emerged later in that summer season. The early closure actually cost those particular guys money. Since the season was only curtailed a week, a full two months were prosecuted for the fall season. In 2017, the lowest commercial harvest for a summer fishery on record (also the shortest. kind of self-explanatory), we also saw a reasonably good harvest in the fall fishery. It would have been a much better harvest had we been given a full two months. The crab in both these fall seasons was dominated by recruit crab. In the case of 2017, had we fished an entire summer season, we may have well seen these crab. My point with all of this is that we had good falls despite the management plan, that these harvests had little to do with the management and more to do with the fact that the summer season was dominated by the last dregs of the last strong cycle and the good falls were the beginning of the next strong cycle.

I've been fishing my whole life. I fully understand protecting the resources I derive my income from. I've been an advocate for all commercial fisheries and the importance of them to this state and our coastal communities. If I believed that our current management plan had any tangible effect on preserving this fishery for the future, I would be in favor of it. I see none.

Sincerely,

Max Worhatch

Submitted By
Michael Thelander
Submitted On
12/27/2017 12:29:04 PM
Affiliation

Phone
4156130704
Email
mike@signalsresearch.com
Address
5300 Painter Creek Green
Independence, Minnesota 55359

To Whom It May Concern:

I have been fly fishing on the Tsiu for about the last fifteen years. With family and work, I don't make it every year, but I've been there about six times, spending up to a week each time that I come. Each trip brings in several thousand dollars to the local community, including hotel and meals in Cordova, as well as fees to stay at the lodge (Alaska Wilderness Outfitting Company)

The Tsiu is a treasure for anyone that loves sport fishing and a day spent on the river makes up for all the times I don't catch a fish when fishing somewhere else.

I understand the need to balance the needs of sport fishermen and commercial fishermen, but after spending several weeks in total on the river over the last decade, I also know the two entities can't reasonably fish in close proximity to each other, let alone on the same stretch of water.

The motorboats used by the commercial fishermen to herd the fish into the nets represent a great hazard to anyone standing in the water. I've seen boats "buzz" fishermen, sometimes passing in between a group of men/women fishing. We (sport fishermen) want to fish where the fish are congregating and they (the commercial fishermen) want to draw out those fish and chase them into their nets. At a minimum, the commercial fishermen turn a tranquil day into a somewhat stressful day since I never know when a boat will keep moving closer and closer to me until I'm forced to go somewhere else.

Given the remote location of the Tsiu, it isn't reasonable to expect everyone to play fair and unfortunately us sport fishermen have a distinct disadvantage - we use fly rods instead of nets and we navigate the water in our waders instead of in a motorized boat.

The only viable option is to mandate fishing zones that are restricted to each party with a measurable distance in between each zone to protect both parties' interests. I understand there is a proposal to reduce the distance to only 1/4 mile instead of a 1/2 mile. The latter distance, if not larger, is much better to preserve the tranquilty of fishing on the Tsiu without fearing life and limb or a busted rod and lost line. At the same time, the commercial fishermen will have ample stretches of the river to meet their quotas.

Sincerely,

Mike Thelander

Submitted By
Michelle Putz
Submitted On
12/14/2017 7:44:35 PM
Affiliation

Phone
907-747-2708
Email
michelleputzfood@yahoo.com
Address
131 Shelikof Way
Sitka, Alaska 99835

Dear Board of Fisheries,

I am writing in support of Board of Fisheries Proposals 99 and 105 and in opposition to Proposals 94 and 104.

Having lived in Sitka for over 12 years, I have seen and experienced a dramatic decline in the areas of heavy spawn, have had trouble catching herring in places where they were formerly common, can no longer supplement my garden with herring spawn (simply because it is less and less available), and worry that we are over-harvesting a species and population that is under multiple stressors. We need to consider the combination of ocean warming, ocean acidification, microplastics, and other environmental stressors as we make decisions on harvest. Being conservative in our harvest levels as suggested in Proposal 99, and providing protected areas for herring production provides future flexibility for the stock and for future fisheries managers.

Additionally I recognize and support the subsistence harvesters of Sitka. The Alaska State Constitution has a subsistence priority for all resources. And many of my friends and neighbors have clearly indicated that they cannot meet their subsistence needs. Conservative management now protects everyone's interest as we move into an uncertain future.

Please support Proposals 99 and 105; please oppose 94 and 104.

Sincerely,

Michelle Putz

Submitted By
mike fox
Submitted On
12/5/2017 8:15:50 PM
Affiliation
Alaskan resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

This comment is in support of proposal 194.

The residents of Juneau are surrounded by commercial fisheries, yet they are not provided with any “fair and reasonable” opportunities to personal use fish for salmon. It is certainly in the “broad public interest” of the residents of SE Alaska to allow personal use fishing in areas like district 15.

Submitted By
mike fox
Submitted On
12/9/2017 9:19:13 PM
Affiliation
Ak. Resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 194.

There is no justifiable reason to prohibit residents from personal use fishing in areas with salmon populations large enough to support commercial fisheries.

The argument that too many SE residents would participate in a fair, reasonable, and efficient personal use salmon fishery, illustrates that this is in the “broad public interest”.

And, if only a few residents participate, there is no justifiable reason to prohibit it.

Submitted By
mike fox
Submitted On
12/5/2017 8:17:27 PM
Affiliation
Alaska resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 192.

The residents of Juneau are surrounded by commercial fisheries, yet they are not provided with any “fair and reasonable” opportunities to personal use fish for salmon. It is certainly in the “broad public interest” of the residents of SE Alaska to allow personal use fishing in areas like district 11.

Submitted By
mike fox
Submitted On
12/9/2017 9:18:16 PM
Affiliation
Ak. Resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 192.

There is no justifiable reason to prohibit residents from personal use fishing in areas with salmon populations large enough to support commercial fisheries.

The argument that too many SE residents would participate in a fair, reasonable, and efficient personal use salmon fishery, illustrates that this is in the “broad public interest”.

And, if only a few residents participate, there is no justifiable reason to prohibit it.

Submitted By
mike fox
Submitted On
12/5/2017 8:27:23 PM
Affiliation
Alaska Resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 137.

It is unreasonable to restrict residents to a single day's possession limit in king salmon sport fisheries that require long travel distances. For example: From Juneau to the outside coast. It would be simple, reasonable, and in the broad public interest, to allow anglers to possess 2 daily bag limits (and immediately recording retained fish).

Submitted By
mike fox
Submitted On
12/9/2017 8:49:40 PM
Affiliation
Ak. Resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 185.

In SE Ak. ADF+G is failing to honor the intent of the Personal Use fishing law.

Intent being….

The underlying purpose of the board's creation of the personal use fishing category was to allowefficient harvesting of fish by individuals who were precluded from participating in subsistence fisheries.

The AG opinion dated 3/21/96 describes the intent of Personal Use fisheries.

MEMORANDUM State of Alaska Department of Law

TO: The Honorable Frank Rue DATE: March 21, 1996

Commissioner

Department of Fish and Game FILE NO.: 663-96-0266

TELEPHONE NO.: 465-6725

SUBJECT: Interpretation of “Personal Use

Fishing”

I. QUESTIONS

ou have asked for an interpretation of the term "personal use fishing." This term

is defined at AS 16.05.940(24) and 5 AAC 77.001(f).

Under the statutory definition: "personal use fishing" means the taking, fishing for, or possession of finfish, shellfish, or other fishery resources, by Alaska residents for personal use and not for sale or barter, with gill or dip net, seine, fish wheel, long line, or other means defined by the Board of Fisheries[.] AS 16.05.940(24).

The underlying purpose of the board's creation of the personal use fishing category was to allow efficient harvesting of fish by individuals who were precluded from participating in subsistence fisheries. See, e.g., 5 AAC 77.001(a); Letter from Don W. Collinsworth, Commissioner, ADF&G, to Robert Willard, Chairman, Legislative Affairs Committee, Alaska Native Brotherhood (Sept. 6, 1984).

The legislative history indicates that the definition and related provisions were intended to authorize the board to adopt regulations allocating fishery resources for purposes of personal use and to **require the board to provide a "fair and reasonable" opportunity** for sport, commercial, **and personal use fishing.** See, e.g., 1985 House J. 584-585, 920-921, 1230-1231

Juneau residents’ are unfairly, and illegally, disenfranchised from their fisheries resources.

1 - The federal government has designated Juneau residents as urban, and disqualified them from participating in any federally managed subsistence fisheries anywhere in Alaska.

2 – ADF+G has designated the Juneau area as a “non subsistence use area” and prohibits all subsistence fishing.

3 – ADF+G has banned personal use fishing for king and coho salmon throughout SE Alaska (5AAC 77.682 c.)

4 – ADF+G provides very few personal use fishing opportunities for other species of salmon in SE.

5 – ADF+G conducts commercial salmon fisheries in waters throughout SE including areas immediately surrounding Juneau.

6 - In other areas if the state ADF+G provides residents many subsistence and personal use salmon fishing opportunities.

7 - ADF+G allows all (resident and non resident) commercial fisherman unlimited personal use fishing (home pack). 5AAC 39.010(a) *A person engaged in commercial fishing may retain finfish from lawfully taken commercial catch for that person's own use.*

All SE Ak residents are entitled to a fair and reasonable opportunity to efficiently catch a "home pack".

And, it's the law.

References.

*AS.16.05.251 (d)…{**shall**} provide a fair and reasonable opportunity for the taking of fishery resources by personal use, sport, and commercial fishermen.*

The board promulgated the following regulation that is contrary to AS16.05.251(d).

5AAC 77.682 (c) Personal use salmon fishery. The department will not issue a permit for the taking of king or coho salmon…

(Home pack regulation) 5AAC 39.010 (a) A person engaged in commercial fishing may retain finfish from lawfully taken commercial catch for that person's own use.

Submitted By
mike fox
Submitted On
12/9/2017 9:04:03 PM
Affiliation
Ak. Resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 185.

It has been consistently demonstrated over the years that the most effective way to influence board decisions is to attend the meetings and lobby ADF+G management and board members. Average Alaskan Residents suffer an extreme disadvantage in this regard.

The overwhelming majority of people in attendance at SE board meetings are involved in the fishing industry. And, because it is their business, they can afford the time and expense to be present.

I ask the Board to respect, and fairly represent, the “broad public interest” as required by law.

I ask the Board to consider the interests of all the residents of SE Alaska, including those who cannot afford the time or money required to attend your meetings.

I ask the Board to remember that very many SE Alaskans are confused and intimidated by the regulatory and management process.

I ask the Board to consider the people who can’t make sense of the process and are relying on THEIR board to be fair.

Having fish to eat is extremely important to many SE residents, and all residents deserve a fair and reasonable opportunity to catch them efficiently.

Submitted By
mike fox
Submitted On
12/9/2017 9:20:12 PM
Affiliation
Ak. Resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 185.

There is no justifiable reason to prohibit residents from personal use fishing in areas with salmon populations large enough to support commercial fisheries.

The argument that too many SE residents would participate in a fair, reasonable, and efficient personal use salmon fishery, illustrates that this is in the “broad public interest”.

And, if only a few residents participate, there is no justifiable reason to prohibit it.

Submitted By
mike fox
Submitted On
12/10/2017 7:40:50 AM
Affiliation
Ak. Resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 185.

It is outrageously unfair, unreasonable, and contrary to state law and intent, that ADF+G bans personal use fishing for king salmon and coho salmon in SE Alaska.

5AAC 77.682 (c) Personal use salmon fishery. The department will not issue a permit for the taking of king or coho salmon….

This fact alone, clearly illustrates the extreme bias that exists within ADF+G management in SE Alaska.

Submitted By
mike fox
Submitted On
12/5/2017 8:06:34 PM
Affiliation
Ak. Resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801

Comment in support of proposal 185.

“Personal use” was adopted with the intention of providing efficient fishing opportunites to all Alaska residents regardless of race or lifestyle. No matter who you are, or where you live, if you are an Alaskan, you can personal use fish. ADF+G is obligated by law to provide “fair and reasonable” personal use fishing opportunities. If we have enough fish to support a commercial fishery we certainly have enough fish to allow residents a personal use fishing opportunity. ref: AS16.05.251(d).

Submitted By
mike fox
Submitted On
12/27/2017 10:50:36 AM
Affiliation
SE Alaska resident

Phone
9077904970
Email
foxhouse@gci.net
Address
3502 Sierra St
Juneau, Alaska 99801-9053

AG opinion dated 3/21/96 describes the intent of Personal Use fisheries.

MEMORANDUM State of Alaska Department of Law

TO: The Honorable Frank Rue DATE: March 21, 1996

Commissioner

Department of Fish and Game FILE NO.: 663-96-0266

TELEPHONE NO.: 465-6725

SUBJECT: Interpretation of “Personal Use Fishing”

I. QUESTIONS

You have asked for an interpretation of the term "personal use fishing." This term is defined at AS 16.05.940(24) and 5 AAC 77.001(f).

Under the statutory definition: "personal use fishing" means the taking, fishing for, or possession of finfish, shellfish, or other fishery resources, by Alaska residents for personal use and not for sale or barter, with gill or dip net, seine, fish wheel, long line, or other means defined by the Board of Fisheries[.] AS 16.05.940(24).

The underlying purpose of the board's creation of the personal use fishing category was to allow efficient harvesting of fish by individuals who were precluded from participating in subsistence fisheries. See, e.g., 5 AAC 77.001(a); Letter from Don W. Collinsworth, Commissioner, ADF&G, to Robert Willard, Chairman, Legislative Affairs Committee, Alaska Native Brotherhood (Sept. 6, 1984).

The legislative history indicates that the definition and related provisions were intended to authorize the board to adopt regulations allocating fishery resources for purposes of personal use and to **require the board to provide a "fair and reasonable" opportunity for sport, commercial, and personal use fishing**. See, e.g., 1985 House J. 584-585, 920-921, 1230-1231

It is wonderful that management provides a way for all commercial fishermen to efficiently fulfill their salmon personal use needs. They are allowed to catch all the salmon that they, and their family and friends, need pursuant to 5AAC 39.010(a).

Most other SE Alaskans are also busy earning their living during the summer. Tourism, construction, fish processing, and their support industries are at their busiest during the summer. Those SE residents deserve a fair and reasonable opportunity to efficiently fulfill their salmon personal use needs as well.

It is clearly unreasonable, unfair, contrary to state law, and contrary to the intent of the personal use fishing category, to restrict most of the residents of SE Alaska to fulfill their personal use fish needs by purchasing fish, or by sport fishing.

Submitted By
MJ Westall
Submitted On
12/27/2017 11:55:01 AM
Affiliation

Phone
907-231-0772
Email
mwestall@acsalaska.net
Address
645 G street #571
Anchorage, Alaska 99501

Proposal 165

To Whom It May Concern,

I have been coming to the Tsiu since 2014 and have fished all over the state. I believe that the Tsiu is the most pristine and premier Coho fishery in the state of Alaska. I had knee surgery a couple of years ago and have some difficulty maneuvering in the river. It is of great concern to my welfare when the boats are suddenly spiraling in the river disrupting the fish and my safety. When I learned there was a proposal to reduce the area available to avoid this disruption and danger associated with this type of commercial activity, I felt compelled to write this letter.

As a resident I urge you to allow as much area as possible for the sport fish users on the Tsiu River and to limit the unsafe boat activity of the commercial operators. If the proposal passes as written I will definitely rethink about ever coming back to the Tsiu and would discourage others as well as it just would not be a safe place to fish.

M. J. Westall

Submitted By
Monica Lord-Wolf
Submitted On
12/28/2017 2:11:44 PM
Affiliation
Alaska Native Sisterhood

Phone
907-440-5474
Email
lehua.otto@alaska.gov
Address
8616 Moorland Street
Anchorage, Alaska 99502

PRO-Proposals 98,99,105,106 AGAINST-Proposal 104. During my first pregnancy in 1982 and each pregnancy thereafter, herring eggs helped in producing breastmilk, confirming it IS medicine for our bodies. Before the herring eggs, my body would not produce breastmilk for the baby. Because it is medicine for our bodies, as all of our food is, I support holding up title 8 of ANILCA on this issue and standing with the Sitka Tribes/Louise Brady.

Submitted By
Nate LaPerriere
Submitted On
12/19/2017 5:54:07 PM
Affiliation

Phone
1-907-747-5063
Email
natelaperriere@Gmail.com
Address
2212 SMC RD
2212 SMC RD
Sitka, Alaska 99835

Dear Board Of Fisheries,

Hi my name is Nate LaPerriere, I am an eleven year old boy. Even in my life, I have seen a big change in the herring population. I used to go down below my house and try to catch herring with a net. But in recent years, I have seen very few if any herring spawn. I love playing on the beach, fishing, and netting herring as well as just listening to all the sea life.

My father has gone out with a friend commercial salmon fishing, as well as my family and I have gone out subsistence fishing for salmon. So as you can see my family and I rely on the herring, so I strongly support proposal 99 if anything. But I would rather stop the herring fishery altogether.

Thank you, Nate

PC118
1 of 2

Hello my Name is Nathan Bernhardt
I have snag herring in crest harbor
an AMB harbor + Elefson hebor, + thomsen
harbor. I don't snag herring anymore
except with my grandkids at
Elefson harbor maybe 3-4 years ago
I use to see herring Jamestown Bay
an out towards Barka. I would see
herring in Sealing cove hebor I don't
see the herring anymore close to town
or in harbors maybe a little here
an there. My Uncle use to have a house
on HPR round were the break water
is. He use to take me to the tide 1968
pools an get herring out of them. 1969 Years
there was alot of people setting
herring out of the tidepools. I don't
see that anymore. I have ate herring
eggs all my life + herring. I have been
harvesting eggs for the last 15 years.
My family has been harvesting for the
last 40-50 years mostly my Brother
Ernie Bernhardt an Jeff Bernhardt

~~I haven't been doing~~

the area's like on HPR spawning ~~very~~ well. some time's not at all an sometime's spoty. There spoty in other area's to. They seem to be spawning further away from town. like crow pass, an Hayward. The fish an game seem to say that there is alot out there. Like on there sonar. But usely little come in. An the Seiner's seem to be fishing them out. They have to go further out to get them. all of the animal's in an around sitka depend on the herring. like whale's, sealion's bird's, fish, an human being's.

I think the Herring Quota should be smaller

The Seiner's should take less

I don't want sitka to have No herring like other place's

thank you,

Nathan Bernhardt
Jeff Bernhardt
Ernie Bernhardt
Eileen wagner

Nathan Bernhardt
P.O. Box 1312
Sitka Alaska
99835

ADF&G Boards Support
P.O. Box 115526
Juneau, AK 99811-5526

SITKA, AK PIONEER
DEC 20

Submitted By
Nicholas Martin
Submitted On
12/27/2017 12:03:12 PM
Affiliation

Phone
19078218278
Email
nick.martin09@gmail.com
Address
Box 8312
Ketchikan, Alaska 99901

I OPPOSE the following proposals: 79, 80, 81, 82, 83, 84, 140, 145, 148, 153. OPPPOSE THEM ALL

Submitted By
Nina Vizcarrondo
Submitted On
12/28/2017 6:14:20 PM
Affiliation
Alaska Native Sisterhood

Alaska, the only state where subsistence is a constitutional right.
If the government had protections for the fishermen (Magnuson-Stevens Conservation and Management Act) when the pink salmon failed to run, who protected/who will protect the subsistence fishermen when the herring or salmon stop running in Sitka?

Submitted By
Nora Skeele
Submitted On
12/15/2017 9:42:18 AM
Affiliation
Commercial fisher, SE Alaska resident and subsistence fisher

Phone
2066126989
Email
norask88@yahoo.com
Address
262 Kaagwaantaan st
Sitka , Alaska 99835

Dear Board of Fish, I'm writing in support of proposal 99 to reduse the sac-roe guideline harvest to 10% of the biomass. Herring are a critical forage fish that are better left in the water to support our rich marine ecosystems and subsistence roe harvest. I strongly support proposal 99 because it would increase the amount of mature herring left in the water where they belong. We have seen a dramatic decrease in the herring spawn since it has been so heavily overfished. It has been deeply disturbing to the local people of Sitka to see the spawn decrease so drastically as something that used to be so reliable and abundant.

Thank you,

Nora Skeele

NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION, INC.

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

1308 Sawmill Creek Road Sitka, Alaska 99835

December 15, 2017

Board of Fisheries

January 15 – 23, 2018
Finfish Sitka, Alaska

Re: Support for Proposals 139, 149, 150, 173, 174, 176; withdraw support for Proposal 142, and opposition to Proposals 144, 146, & 147

Dear Chairman Jensen and Board of Fish Members:

Northern Southeast Regional Aquaculture Association (NSRAA) has an elected board of sixteen fishermen representing all salmon permit holders in southeast Alaska; the board also has 9 appointed seats representing a broad interest of sports, subsistence, municipality, Native organization, conservation, and two interested persons. NSRAA authored four (4) proposals, one of which we withdraw support (142) and three of which we continue to fully support (139, 149, & 150).

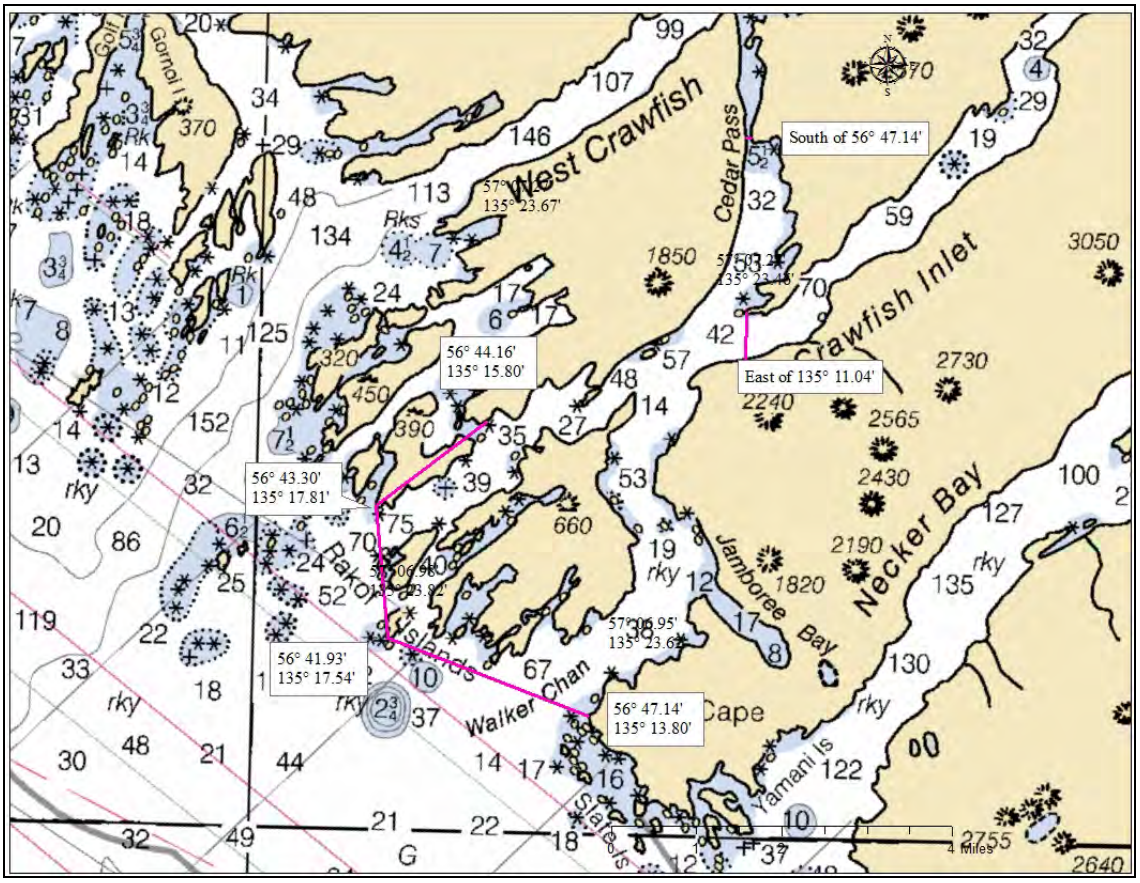
NSRAA **supports** the following proposals:

> **NSRAA Proposal 139 5 AAC 33.387** – Southeast Cove Terminal Harvest Area. In 2017, NSRAA took over ownership and operation of the Gunnuk Creek Hatchery and its remote release site at SE Cove. Currently, only cost recovery occurs at SE Cove, but once Alaska Department of Commerce relinquishes title to the last chum returns in 2019, NSRAA would like to have the ability to put any mix of troll, seine, gillnet, or cost recovery in SE Cove. In the next five years it is likely only seine, troll, and/or cost recovery would be allowed in SE Cove due to the imbalance of enhanced salmon vis-à-vis the Allocation Plan. However, when the allocation percentages change in the future, having the tools to make adjustments in gear harvest rates will be important.
>
> **NSRAA Proposal 149 – 5 AAC 40.042** – This is a housekeeping date change to the regulation for Deep Inlet season closure. The change simply substitutes October 31 for September 15. This does two things, 1) aligns the closure time at Deep Inlet with Bear Cove (already October 31) where coho broodstock are released and return and 2) allows coho harvest at Deep Inlet through the end of the run. The coho program at Deep Inlet has been developing over the past five years, but only now has come into full and robust adult

returns. Adult coho return from early August through the end of October; adopting the proposal would provide additional commercial opportunity without requiring Emergency Orders.

NSRAA Proposal 150 – 5 AAC 40.042– NSRAA has been operating a remote release site at Crawfish Inlet since 2015, with the first adults returning in 2017. Harvest by troll and seine cost recovery occurred via ADF&G announcement. NSRAA would like to establish a Special Harvest Area (SHA) in regulation for Crawfish Inlet based on boundary lines agreed to in consultation with ADF&G. This proposal would establish a separate boundary for troll SHA and a smaller more confined SHA for net gear and cost recovery. The intention of the expanded troll area is to provide additional opportunity, although it could only be used when ADF&G deems there is no conflict with wildstocks.

The first part of the proposal (a) (10) establishes the SHA boundaries and the second part (c) (10) establishes which gear types may be used within the SHA.



NSRAA Troll Reps Proposal 173 – 5 AAC 29.114 District 12 & 14 Chum Salmon Management Plan – This is an existing regulation that sunsets December 31, 2017. This proposal would maintain the management plan in regulation, which is an important management tool that provides trollers access to enhanced chum salmon in Icy Strait and

upper Chatham Strait.

NSRAA Troll Reps Proposal 174 – **5 AAC 29.114 District 9 & 10 Chum Salmon Management Plan –** NSRAA conducts a remote release program in S.E. Cove near Kake, Alaska and the Gunnuk Creek Hatchery. Large numbers of chum began returning to S.E. Cove beginning in 2016 with numbers expected to quadruple in the next couple of years. There is expected to be a troll opportunity along the northeast shoreline of Kuiu Island and on into Keku Straits near Kake. This proposal would establish a troll management plan for Districts 9&10 specific to this new harvest opportunity. The S.E. Cove program and this management plan is designed to benefit trollers and improve the allocation of S.E. enhanced salmon.

Alaska Trollers Association Proposal 176 – 5 AAC 29.112 Management Chum Salmon Troll Fishery – NSRAA operates a new chum and chinook program at Crawfish Inlet. NSRAA's Proposal 150 intends to establish a new SHA for Crawfish Inlet and we support inclusion of Crawfish Inlet as a SHA where chum trolling may occur when ADF&G deems prudent during the southeast wide coho troll closure. We support this Alaska Trollers Association (ATA) proposal.

NSRAA **withdraws support** for the following proposal

NSRAA Proposal 142 – **5 AAC 33.376 Deep Inlet.** The NSRAA board of directors at its March 2017 meeting initiated Proposal 142 regarding modification of the Deep Inlet rotation schedule on a split vote. At the November 2017 NSRAA board meeting the board reversed (majority vote) its March decision and withdraws support of the proposal.

NSRAA **opposes** the following proposals:

Oppose Proposal 144 – **5 AAC 33.376 Deep Inlet THA Management –** This proposal seeks to allow troll gear in Deep Inlet while there is gillnet, seine, or cost recovery harvest occurring. Allowing this would create chaos among the fishing boats, gear entanglement, and likely property damage. Trolling requires continuous forward movement at 2 to 3 knots while seine and gillnet gear is deployed in a line or arc, where it drifts at the mercy of currents or is towed under power. This proposal will promote conflict, and not solve a problem. The NSRAA board created a new chum program at Crawfish Inlet with specific troll priority to help the troll allocation imbalance.

The NSRAA board with seine, troll, and gillnet representatives voted to oppose this proposal.

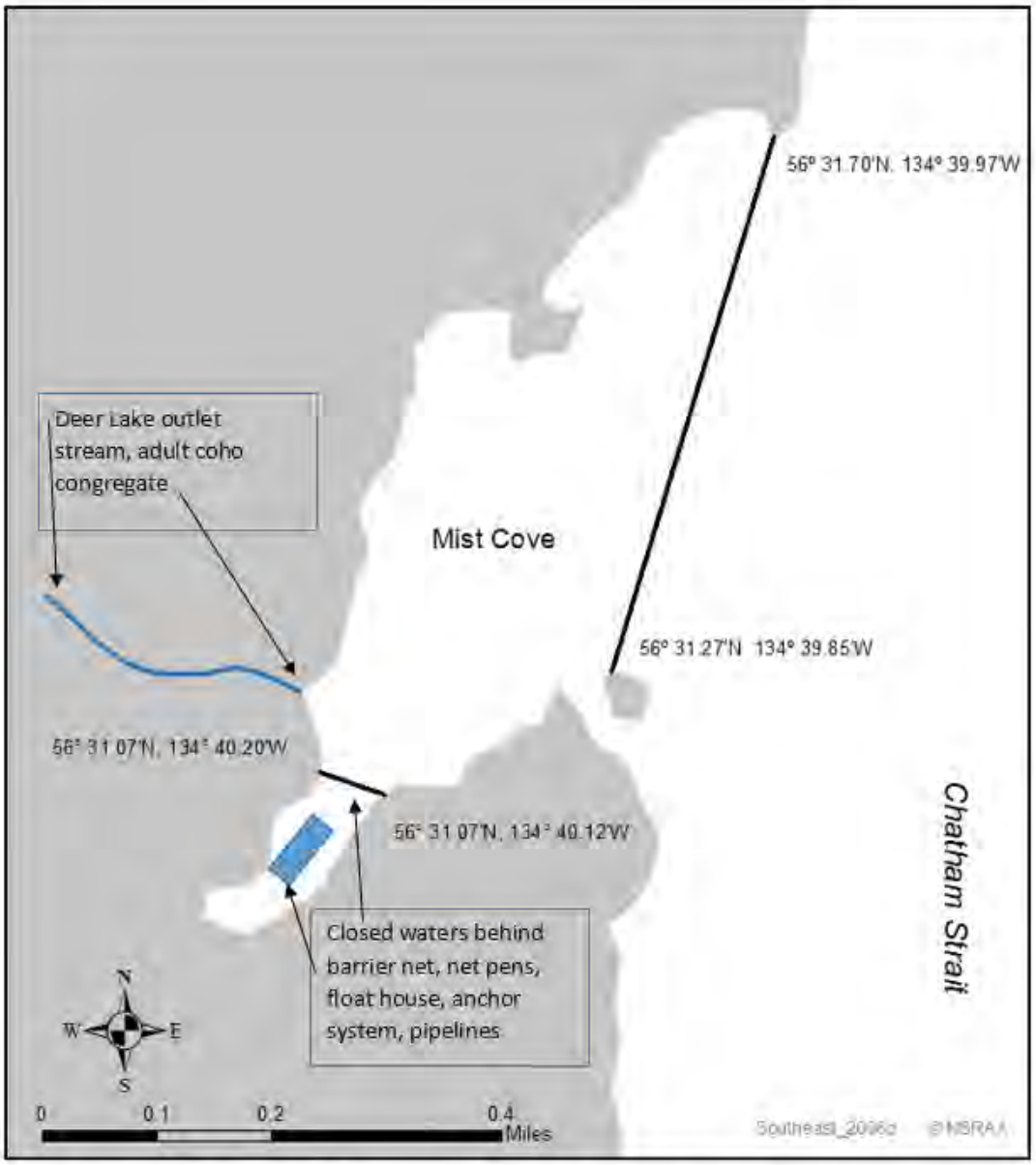
Oppose Proposal 146 – **5 AAC 33.364 S.E. Allocation Plan** – The 1994 BOF findings **#94-02-FB** state that production of non-regionals (DIPAC, SJC, & AKI) will be included in the allocation value. This is consistent with Alaska statues in **Section 16.10.380** and **16.10.450.** This proposal is a tool to subvert the allocation imbalance by removing the largest gillnet value contributor (DIPAC) from the allocation plan in order to change the

percentage of the group that is far above their allocation range. This is like two brothers receiving money from a parent, one gets a fifty dollar bill and one gets two fifty dollar bills. The first brother says, “That is unfair and not balanced”, and the second brother says “okay I’ll tuck one fifty in my back pocket so you can’t see it and therefore it won’t count……problem solved”.

NSRAA continues to work diligently to solve the allocation imbalance through new production, not ledger domain. Major new chum production is in the ocean and expected to affect allocation percentages for the troll and seine fleets beginning in 2018 and 2020, respectively.

Oppose Proposal 147 – 5 AAC 47.021 Mist Cove SHA Closure Exception – This proposal requests an exception for one kind of sport fishing (fly-fishing) in a closed area of a SHA. If granted, this exception would create chaos in the non-fishing area. Currently the demarcation of non-fishing and fishing is clear. Having an exception to the rule would create a need for enforcement in a very remote area of the state (120 water miles from Sitka). NSRAA staff does not want to be in the position to judge who is fly-fishing and who is not.

Another concern is for safety and wellbeing of NSRAA staff in the closed area, which is quite small. Fly-fishing requires space to feed out the line and hook; this would create a dangerous workspace. Sport fishing interests harvest hundreds of coho in Mist Cove because there is plenty of opportunity and area to fish. The closed SHA and the area open to sport, commercial troll and cost recovery harvest contains industrial net pens, seine harvest boats, tenders, sport fishing boats, sport charter operators, and work skiffs. Although remote, this is not some stream out of *A River Runs Through It*, by Norman Maclean with the solitude of one person fly-fishing and casting to the beat of geologic time. Mist Cove is a busy area with coho returns of 100,000+ where cost recovery operations occur several times per week, commercial trollers harvest in and outside of the bay and NSRAA conducts its saltwater operations. There may be places to create an exception for fly-fishing, but the Mist Cove SHA and work area is definitely not that place. We welcome sport fishing and sport charter fishing in the open area and staff is accommodating to visitors and clients of sport charter operations.



Mist Cove SHA, consisting of all waters of Mist Cove west of a line from 56°31.70'N lat, 134°39.97'W long to 56°31.27'N lat, 134°39.85'W long; Waters closed to common property fishing within the Mist Cove SHA are south of a line from 56°31.07'N lat, 134°40.20'W long to 56°31.07'N lat, 134°40.12'W long.

I am happy to serve on committees with regard to these proposals if the board deems committee work necessary. I appreciate your time and consideration of my comments.

Sincerely,

Steve Reifenstuhl

General Manager, NSRAA

CONCERNING MASS MARKING OF CHINOOK AND MARK-SELECTIVE FISHERIES CONDUCTED IN SOUTHEAST ALASKA

Whereas, the NSRAA Board is concerned that mark-selective fisheries have been conducted in the waters of the State and have been developed without the approval of the Alaska's legislatively-mandated process for fishery regulation under the State Board

of Fisheries process[3]; and,

Whereas, acceptance of mark-selective fisheries for implementation in Alaska outside of the Alaska State Board of Fisheries regulatory authority is inconsistent with the Pacific Salmon Treaty 2009 Agreement and the bilaterally negotiated understanding that, "The Pacific Salmon Commission develops catch limits and related provisions to present to the two governments. These recommendations, which become effective upon approval by both governments, are then implemented by each countries domestic management authority.[4] "; and,

Whereas, mass marking of Chinook and mark-selective fisheries in Washington State and British Columbia are within their purview, are independent of the Alaska regulatory process, and if adopted bilaterally by the Pacific Salmon Commission, funding should be provided by the United States Department of State in consultation with the Canadian government and US funding authorities; and,

Whereas, the NSRAA Board believes it is inappropriate to be lobbying for Federal funding from the Alaska Congressional delegation for a program that would have direct impacts on the Association operations and on fisheries without having engaged the Association in a dialogue and public process, and is concerned that Alaskan fishing industry acceptance and support for these programs are being misrepresented.

Now therefore be it resolved, the NSRAA Board of Directors is not in support of mass marking and mark-selective fisheries in southeast Alaska fisheries at this time, in light of the stated concerns and unanswered questions.

Passed, Approved and Adopted by the NSRAA Board of Directors on this 16th day of November 2017.

Kevin McDougall, President NSRAA Board of Directors

_____

Steve Reifenstuhl, NSRAA General Manager

United States Department of the Interior

Office of Subsistence Management
1011 East Tudor Road MS 121
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:

OSM 17111.GP

DEC 27 2017

Mr. John Jensen, Chair
Alaska Board of Fisheries
Alaska Department of Fish and Game
P.O. Box 115526
Juneau, Alaska 99811-5526

Dear Chairman Jensen:

The Alaska Board of Fisheries will consider 153 proposals, among other issues, at its Southeast Alaska and Yakutat area on January 11-23, 2018 meeting in Sitka, Alaska.

The Office of Subsistence Management, working with other Federal agencies, has reviewed these proposals and has included the enclosed Federal staff comments for proposals which may result in impacts to Federal subsistence users or fisheries. During the meeting, we may wish to comment on other agenda items if issues arise that may have an impact on Federal subsistence users or fisheries.

We appreciate the opportunity to comment on these important regulatory matters and look forward to working with your Board and the Alaska Department of Fish and Game on these issues.

Sincerely,

Eugene R. Peltola Jr.
Assistant Regional Director

Enclosure

CC: Anthony Christianson, Chair, Federal Subsistence Board
Thomas Doolittle, Deputy Assistant Regional Director, Office of Subsistence Management
Jennifer Hardin, PhD, Subsistence Policy Coordinator, Office of Subsistence Management
Stewart Cogswell, Fisheries Division Supervisor, Office of Subsistence Management
Pippa Kenner, Acting Anthropology Division Supervisor, Office of Subsistence Management
DeAnna Perry, Subsistence Council Coordinator, United States Forest Service.
Sam Cotten, Commissioner, Alaska Department of Fish and Game
Glenn Haight, Executive Director, Alaska Department of Fish and Game
Jill Klein, Special Assistant to the Commissioner, Alaska Department of Fish and Game
Lisa Olson, Division Operations Manager, Alaska Department of Fish and Game
Hazel Nelson, Subsistence Division Director, Alaska Department of Fish and Game
Scott Kelley, Commercial Fisheries Division Director, Alaska Department of Fish and Game
Thomas Brookover, Sport Fish Division Director, Alaska Department of Fish and Game
Tom Taube, Division Operations Manager, Alaska Department of Fish and Game
Forrest Bowers, Division Operations Manager, Alaska Department of Fish and Game
Chair, Southeast Subsistence Regional Advisory Council
Interagency Staff Committee
Administrative Record

OFFICE OF SUBSISTENCE MANAGEMENT COMMENTS ON ALASKA BOARD OF FISHERIES PROPOSALS FOR THE SOUTHEAST AND YAKUTAT FINFISH MANAGEMENT AREAS

State of Alaska
Board of Fisheries Meeting
Sitka, Alaska

January 11-23, 2018

PROPOSALS 104, 105, and 106 seek to modify the waters closed to commercial herring fishing in District 13 of Southeastern Alaska known as the "core area". Proposal 104 requests repealing certain closed waters provisions in District 13 effectively liberalizing/expanding the area available to commercially fish. Proposal 105 and 106 request expansion of the area closed to commercial herring fishing in District 13 effectively restricting commercial herring fishing to areas outside of the proposed expanded "core area". The three proposals were grouped because each addresses modifying the boundaries of the "core area" in District 13 which include or are adjacent to waters under Federal subsistence fisheries jurisdiction.

Current State Regulation:

5 AAC 27.150. Waters closed to herring fishing in Southeastern Alaska Area Herring may not be taken in:

> *(7) District 13, in the waters north and west of the Eliason Harbor breakwater and Makhnati Island Causeway from the westernmost tip of Makhnati Island to the easternmost point on Bieli Rock to the southernmost tip of Gagarin Island to a point on the eastern shore of Crow Island at 57 06.43' N. lat., 135 28.27' W. long. to a point on the western shore of Middle Island at 57 06.41' N. lat., 135 28.11' W. long. to a point on the southeastern shore of Middle Island at 57 05.56' N .lat., 135 26.23' W. long. to the green navigation marker northeast of Kasiana Island, to the Baranof Island shore at 57 05.26' N. lat., 135 22.95' W. long.*

Current Federal Regulation:

36 CFR 242 and 50 CFR 100

> *(e)(13)(xxi) The Federal public waters in the Makhnati Island area, as defined in §100.3(b)(5) are closed to the harvest of herring and herring spawn except by Federally qualified users.*

Is a similar issue being addressed by the Federal Subsistence Board? No.

Impact to Federal subsistence users/fisheries: Unknown. Adoption of any of the three proposals may impact harvest success rates of Federally qualified users fishing in waters under Federal subsistence fisheries jurisdiction surrounding Makhnati Island or within the different proposed core areas. It is difficult to determine the impacts that adopting the different proposals may have on Federally qualified users fishing or gathering herring roe in the identified areas because of the mobility of the herring schools within Sitka Sound leads to the unpredictability of where the schools will mill or spawn.

Federal position/recommended action: Neutral. These three proposals are likely allocative in nature between user groups participating in fisheries outside of waters under Federal subsistence fisheries jurisdiction. The Federal Subsistence Management Program has provided these comments to ensure the Board of Fisheries has the most current Federal regulations and understands the Federal public waters around Makhnati Island are currently limited to herring fishing and herring spawn fishing to Federally qualified users.

PROPOSAL 187 seeks to re-open the personal use salmon fishery in the Klawock River on Prince of Wales Island. The proponent requests the reauthorization of the use of "subsistence beach seines" be restored in the area between the Craig-Klawock Highway Bridge and the Klawock River.

Current State Regulation:

5 AAC 77.682. Personal use salmon fishery.

(i) The following waters are closed to the personal use taking of salmon:
(3) the Klawock River drainage upstream of the Klawock River Bridge.

5 AAC 01.710. Fishing seasons

(e) From July 7 through August 7, sockeye salmon may be taken in the waters of Klawock Inlet enclosed by a line from Klawock Light to the Klawock Oil Dock, the Klawock River, and Klawock Lake only from 8:00 a.m. Monday until 5:00 p.m. Friday.

5 AAC 01.725. Waters closed to subsistence fishing

(a) The following waters are closed to the subsistence taking of salmon:

(a) Salmon may not be taken for subsistence purposes in

(1) the Klawock River drainage upstream of the Klawock River Bridge;

Current Federal Regulation:

36 CFR 242.27 and 50 CFR 100.27

(e)(13)(xx) The Klawock River drainage is closed to the use of seines and gillnets during July and August.

Additionally, the area addressed by this proposal borders but is not within Federal subsistence fisheries jurisdiction.

Is a similar issue being addressed by the Federal Subsistence Board? No. This fishery was restricted by both the Alaska Board of Fisheries and the Federal Subsistence Board (via proposal FP15-15 submitted by the Southeast Alaska Regional Subsistence Advisory Council) during the winter 2014/2015 regulatory meetings season.

Impact to Federal subsistence users/fisheries: Yes. Adoption of this proposal may lead to potential overharvest of Klawock River bound Sockeye Salmon within the area of concern. Sockeye Salmon are harvested by Federally qualified subsistence users in the Klawock River and Lake generally upstream of the waters addressed by this proposal, which are under Federal subsistence fisheries jurisdiction. Due to the close proximity of the area addressed by this

proposal and the Federal subsistence fishery, both fisheries target the same Sockeye Salmon stock which are likely milling and displaying terminally spawning system fidelity.

Klawock Sockeye Salmon weir counts have been declining in recent years. The Prince of Wales Hatchery Association (POWHA) maintains an aluminum bipod weir on the Klawock River just below the lake. From 2001-2011, weir operation began in early July to specifically count sockeye. Weir counts of Klawock Sockeye Salmon during the 1930's averaged just over 35,000 fish. During the period of 2000 through 2010, weir counts ranged from 6,198 to 22,739 Sockeye Salmon. Since 2011, weir counts have been less than 5,000 Sockeye Salmon.

Prior to 2006, the only Sockeye Salmon harvest reported on Federal subsistence fishing permits from the Klawock Lake/River drainage was seven incidentally taken during the Federal subsistence Coho Salmon fishery. Since 2006, directed harvest of Sockeye Salmon has been reported on Federal permits. Harvests reported from 2006-2016 have ranged from 9 to 301 Sockeye Salmon, with dip net, gillnet, seine and hand line gear being used. Seine and gillnets have comprised 78 percent of the total harvest reported on Federal permits (Forest Service 2017).

Federal position/recommended action: Oppose. Adoption of this proposal may lead to over exploitation of the Klawock River Sockeye Salmon stock, resulting in both conservation concerns and challenges to the continuance of subsistence uses. Adoption of this proposal could have the opposite effect on the Sockeye Salmon stock both the Federal Subsistence Board and Board of Fisheries took recent regulatory action to protect.

Patricia Roberts Alexander
P.O. Box 1284
Sitka, Alaska 99835
907-752-0487
pata6088@gmail.com

December 20, 2017

To the 2018 Board of Fish.

My name is Patricia Roberts Alexander. I lived in Sitka in the 1950's and live here now. I eat herring eggs! I am the daughter of a Klawock commercial fisherman. I am also a member of the Sitka Tribe of Alaska's Cultural, Customary and Traditional Committee (CC&T). I am also a lifetime member of the Alaska Native Sisterhood. I thank the Sitka Fish and Game Advisory Committee and the Board of Fish for their work on these issues.

Thank you for increasing the ANS and the threshold. I also wish to thank the Board of Fish for establishing the subsistence zone for herring.

I am concerned about the formulas used for the biomass assessment is often wrong sometimes 47% wrong, as in 2012, when only 53% of the forecasted biomass showed up on the spawning grounds. We must work together using science and traditional knowledge to devise a formula that is correct. It seems impossible to be nimble and manage the resource in season. There is no measurement of poor quality spawn. In 1985 the herring spawned for one month and was two inches thick according to a long time member of the STA Herring Committee, Mr. John Duncan. We cannot say how ocean acidification and climate change are affecting the herring resource and others. There was no kelp with eggs in Sitka Sound this year. Sitka gardeners no longer cab find kelp for their gardens in Sitka Sound and one came to testify to the CCT Committee. I can remember thick spawn in Sitka Sound, north and south and in Juneau where the Alaska Marine Highway docks. The south part of the Sitka Sound no longer has herring spawn. Neither does Auk Bay.

I heard in a Sitka Fish and Game Advisory Board meeting that last year there were 130 whales when there were only 30 the year before. This must be factored into the formula for determining the biomass and amounts to be harvested. Herring should be recognized as a forage fish in Alaska State regulations. Loss of this essential herring fishery will negatively affect every fishery. Herring comprise 60% of king salmon diet, and 50% for halibut. This is for all the marbles. Look at where it as not managed properly elsewhere. The herring did not come back. Sitka Sound is the last stock of herring. We must be conservative in the management of this resource! We do not want our children to have to go a museum to see herring like in Iceland.

Subsistence is less than 7% of the sac roe harvest. It must be protected as essential nutritional indigenous food for indigenous people. The Alaska State Constitution AS 16.05.258(b) says provision of subsistence first before the resources are used for any other resource. I believe the herring fishery is too long. It used to be two days and is now two weeks.

It is time to cut the days of harvest by half to preserve the resource. I did not share my herring eggs on branches this year except with one sister. I have a lot more relatives that did not get any this year.

Proposal 94 – Strongly oppose
Reduce subsistence herring amounts

Proposal 99 – Support
Reduce herring roe harvest rate
It is very important for the Board of Fish to take a step toward conservation. Harvesting less herring and eggs will cause hardship on Native people. It is an essential part of our lifestyle from traditional parties, special occasions and ceremonies. The Alaska State Constitution says to provide for subsistence first before it is used for any other resource.

Proposal 104 – Strongly oppose
Repeal closed herring waters
The small bays are nurseries for the smaller herring. It will result in greater survival rate.

Proposal 105 – Strongly support
Expand closed waters to herring commercial fishing

Proposal 106 – Strongly Support
Expand closed waters to commercial herring fishing

Proposal 107 – Oppose

Thank you for the opportunity to give testimony and for your work. Please carefully consider the oral and written testimony of those with traditional knowledge of the herring and other resources.

Sincerely,

Patricia Alexander

Patricia Roberts Alexander

Submitted By
Patricia Lee Dick
Submitted On
12/28/2017 9:05:53 PM
Affiliation
NA

NONE of the proposals are acceptable because global climate change is a GAME CHANGER. It is not an “I’m gonna have to come up with a revised MODEL” or “we are have to change where we dip the net” or a “we are going to have to reduce the amount taken.” It is adapt to the change in climate or fail.

The ocean has warmed on average 2 degrees Celsius and 2 degrees Celsius is warmer than 2 degrees Fahrenheit. Think about your own capacity for surviving an increase in body temperature. Would you survive with a temperature of almost 101 instead of 98.6? Think about how you feel at the higher temperature. In the enormous “blobs” of warm water that we have had in the past in the Pacific, the temperature is even higher. No doubt about it, from the Fisheries Report many types of fish populations are being affected. You as fish managers are burdened with the job of saving fish populations in an extremely rapid changing environment. You owe it to yourself to watch “Chasing Coral” because it illustrates how fast organisms can die off (a number of days) because of the speed of the environmental change that is occurring in the ocean. No one dealing with the keeping the Herring population from collapsing, should do so without reading the Herring Synthesis. Here’s the link: http://herringsynthesis.research.pdx.edu/final_docs/HerringSynthesisFINAL102710.pdf Managers and advisory committee members need to understand history before they jump on this “climate changing locomotive" and make decisions on preventing the impending collapse of the Sitka Herring Fishery.

If this is not enough of worry, consider what the extreme ocean temperature is doing to the plankton. They are getting hit not only from uninhabitable temperatures but also extreme northern water ocean acidification. Which shell is going to melt first, the shell of a crustacean zooplankton copepod or a clam? The plankton don’t have the ability to dive when the water gets too warm like the herring do. They have to live in the photic zone. Since herring, salmon, and so many creatures depend on plankton to live, there has to be a slowdown of destruction in whatever way we can make it happen in this very fragile ocean ecosystem.

We need to listen to the Native people who have been telling you from day one to shut this herring fishery down! I know men who spent their entire lives attending one herring meeting after another explaining how important forage fish are to this marine ecosystem to no avail. Elders have told you that it is a keystone species and to kill the whole fish BEFORE it has laid it’s eggs is WRONG! Everyone knows that is wrong. Aesop knew it over 2,600 years ago when he wrote the fable of the goose that laid the golden eggs. More recently, the Lingit have a special herring story, ceremony, sacred rock, and haunting herring song. All to a tiny fish that is an important part of the foundation of the Sitka Sound (and Gulf of Alaska) ecosystem. The Haida stopped a herring fishery by asserting their sovereign rights.

The system of fisheries advisory boards is rigged in favor of the commercial gear types, with only one seat allocated for subsistence. Thus, it is futile to attempt to save the herring via this system. The only viable route to save the herring (forage species) that form the foundation of almost all SE Alaska fisheries is to litigate. SE Alaska Natives need to follow the example of the indigeneous Canadian Natives in Bella Bella who stopped the destructive practices destroying their fishery and to assert their sovereignty in international courts.

The local Native people have contributed their herring data for man years but somehow their traditional knowledge is considered to be inferior to a biology degree and a position at ADF&G? Please note that the current fisheries in SE Alaska are a mere shadow of the abundance and diversity that euro-american colonists witnessed on their arrival.

I suggest the State of Alaska begin a co-operative process of sharing management (sovereign to sovereign) to manage fisheries, especially forage fish species. Sitka Tribe has developed a top notch Natural Resource Protection arm that is compiling their own research-based data on everything from local plankton populations, fisheries, and a wide variety of natural resources. I imagine STA might be going to follow your protocol and pick proposal #99 from your list of supposedly best 8 herring proposals. But I don’t believe in the process, I don’t think it is fair and I hope STA chooses to oppose any alternativethat is **anything short of closing down the commercial herring fishery. STA** needs to marshal support in this community to seek other alternatives in it’s fight to save the herring foundation of most SE Alaska fisheries. There is help out there for tribes to exert their sovereignty. I listed just a few at the end of this comment.

But first, I am writing this comment. I am hoping that you reject ALL these proposals and base your decision on scientific method rather than the political pressure from the wealthy herring sac roe permit holders. SE Alaska herring need a chance to survive in this constant game changing ocean. We can no longer live waste our resources by utilizing old solutions to the new problems faced with global climate change.

I would like to point out that ADF&G research is not the only research that is being done on Herring. The Sitka Conservation Society brought in a herring researcher from the Pacific Northwest last year and he had an enormous amount of data of DNA in herring stocks around Puget Sound and up to Alaska. And it all pointed to the collapse of herring populations due to over fishing and wiping out whole DNA strains. There is so much riding on your shoulders, too much really. If I were you, I would listen to the people who have a personal relationship with the herring. Listen to the herring song!

Sincerely,

Patricia Dick

Sooktushaa (adopted Kiks.adi)

Native Americans need the protection of the court otherwise they are left with broken promises or they are left with their hat in their hand in unfair commercial interest committees that ignore their interests.

Help for Alaska tribes to assert their sovereignty:

Alaska Law Help is a legal firm that deals with fishing and hunting rights, here's the link.

https://alaskalawhelp.org/issues/native-american-issues

The National Congress of American Indians specializes in Native fishing and hunting rights

http://www.ncai.org/resources/resolutions/federal-recognition-of-alaska-native-hunting-and-fishing-rights

The Sea Shepard Justice is a wonderful organization that secures justice for the sea.

https://seashepherdlegal.org/?gclid=Cj0KCQiAyNjRBRCpARIsAPDBnn3BPgSzorbHTANK_sn9MSG18GB3GhDariw4jHQsXhDffmNUrFDxKG4aAmUyEALw_wcB

From: bookey
To: DFG, BOF Comments (DFG sponsored)
Subject: Rock fish release
Date: Thursday, December 14, 2017 3:57:33 PM

Board members,

I have no problem with the proposal for “All” vessels to have a deep water release device on board while fishing, as long as this regulation requires commercial fishing vessels to use the same device. I see orange on the water behind almost every long liner fishing in and near Prince William Sound. By catch or not we must protect the species. Every vessel must be required to use such a device.

Patrick M. Bookey
Luck of the Irish Charters
Box 55194
North Pole, Alaska 99705
907 378 6688

Sent from my iPhone

Submitted By
Paul Menish
Submitted On
12/19/2017 9:06:21 AM
Affiliation
Permit holder

Phone
907 518 0777
Email
paulmenish@gmail.com
Address
609 Rambler street
Petersburg, Alaska 99833

To the board, my name is Paul Menish I currently own a 300 pot s.e. Alaska Dungeness crab permit.I am sending this e mail in support of proposal 253. Thank you

Submitted By
Paul Reinsch
Submitted On
12/27/2017 4:43:59 PM
Affiliation

Phone
406-640-02211
Email
cradleboard@live.com
Address
104 canyon st
P.O. Box 849
West Yellowstone , Montana 59758

Four of us fished the Tsiu in 2013, 5 days in mid sept. We were told that the commerical fishermen

only fished 3 days out of the week, and the other days were for sport fishermen. There not being anyone there to inforce the rules, they ran thier nets every day we were there. They used jet boats to heard the fish into the gill nets. DC3 would land and take off most of the day. Not a good experience. Did we catch fish, Yes, did we have fun, Yes would it have been much better with out the commerical fishing the way it was. HELL YES. There needs to be more room for the sport fishermen, without having to put up with having a good spot spoiled when a jet boat goes thru hearding the fish. The nets at that time were set on each side of the river may be 50 yards or more aspart , not all the way across, but they might as well have been. Fish had to zig zag to get thru the nets. At that time it is a small wonder that enough fish made it to spawn, for future runs. Please do something to make it better. I have been incontact with the lodges, and when it is we will return. We are fly fishermen, catch and release unless the fish was caught in the gills, then we kept it. 4 fishermen 5 days, less that 15 fish we kept and brought home. barbless hooks.

Paul

Submitted By
Peter Bradley
Submitted On
12/28/2017 5:58:09 PM
Affiliation

Phone
907-623-7879
Email
peterbradleypeterbradley@gmail.com
Address
409 Monastery St
Sitka, Alaska 99835

I am writing today because I would like to see herring thrive. I encourage the board of fish to adopt proposal 98 (or 99), in addition to proposals 105 and 106 - which I believe will lead to greater economic, cultural, and environmental health in the long term - and to reject proposals 94 and 104, which will reduce the availability of a subsistence lifestyle.

Further, I am writing in hopes that board members will consult *Herring Synthesis* by Tom Thornton, Madonna Moss, Fritz Funk, et al., as deliberations proceed.

A few years ago, The North Pacific Research Board commissioned a substantial research project spearheaded by Tom Thornton. The project methodology was designed to create a synthesis of historical data, archaeological evidence, and Local and Traditional Knowledge (LTK). I'd like to share some of what I've learned from Herring Synthesis, as it clearly demonstrates that we are managing herring at a depleted status caused by over-exploitation in the past. The carefully researched document leads me to the conclusion that we should avoid fishing practices that are highly likely to interfere directly with the recovery of herring populations in Southeast Alaska.

I will start by describing some of the basic findings of herring synthesis about historic cultural importance of the fish, best summarized by the following excerpt from p.50 of *Herring Synthesis*:

Overall, Pacific herring can be considered “cultural keystone species” among Southeast Natives, according to criteria outlined by Garibaldi and Turner (2004), including its: 1) intensity, cultivation, and multiplicy of use, 2) rich linguisitic and 3) cultural associations, 4) persistence in memory and use despite cultural change, 5) unique and irreplaceable role in socioecological system, and 6) value in providing opportunities for resource acquisition beyond the home territory (e.g., through exchange).

It is in the context of this traditional use and importance across Southeast Alaska that herring management should be conducted. As such, it would be inappropriate to adopt proposals 94 and 104, which will further reduce the availability of subsistence lifestyle in Sitka and Southeast Alaska. It is clear that the availability of herring for subsistence use is not what it used to be - it takes more time, requires greater distance travelled, requires greater expense and access to technology/transportation, and has a higher likelihood of failure. Those are not traits that bode well for subsistence use. *Herring Synthesis* features 270 pages (p.296-595) of LTK observations from across Southeast Alaska; most of those observations are recollections of drastic reductions in herring populations across Southeast Alaska in the last several decades. The board of fish is responsible for protecting the subsistence availability of herring and herring roe, and the adoption of proposals 94 and 104 will interfere with that.

Proposals 105 and 106, on the other hand, offer important protections for subsistence use of herring, expanding the protected area near Sitka to include areas of importance for the survival of young herring and areas closer to the road system, which in some years will provide much easier access for the roe-on-branch practice.

In the conclusions to *Herring Synthesis,* Thornton points out that:

As a critical prey species in a complex marine food web, herring are both resilient and adaptive, and thus have avoided extirpation. Herring populations have shown the ability to recover and repopulate areas where they have been overfished or temporarily abandoned due to habitat stress. But it is important to get the management right at the ecosystem level, not just the commercial exploitation level, because herring are a key foundation species for the North Pacific food web, and rebuilding depleted stocks is difficult with or without LTK. In addition to putting in place a set of short, medium, and long-term ecosystem goals to encompass herring management, it is important to communicate effectively and bring local leaders together who are willing to consider the full spectrum of views and uses of herring and manage the species appropriately to meet critical marine ecosystem conservation goals. Local and Traditional Knowledge

bearers are criticual contributors to this mission, as well as key sources of data, often possessing the earlies and widest range of knowledge available for particular herring schools and habitats. Their knowledge should not be dismissed simply because it is not compatible with current management models.

In accordance with that statement, it seems prudent to reduce the burden of the purse seine sac-roe herring fishery in Southeast Alaska by adopting proposal 98 (or 99), offering a greater opportunity for an eventual rebound to historic levels of herring.

With all of that said, I would like to close on a personal note.

Earlier this year, I happened to be in Farragut Bay off Frederick Sound while herring were in the bay. I've never been in a place that felt so alive - seabirds of all stripes, whales, and sea lions, all gorging on herring in full-fledged ecosystem rhapsody. I had the same feeling recently, watching mobs of humpbacks and seabirds feast on juvenile herring near town in Sitka. The fact that herring draw together birds and salmon and whales wherever they go leave me with what feels like an easy conclusion: it is a mistake to pull these forage fish out of the ocean so their roe can be sent to market overseas and their remains (a huge percentage of the total harvested mass) to fish farms down south.

It seems to me that the economic and ecological benefits of leaving herring alone would vastly outweigh the benefits of fishing them. It also seems to me that we probably still don't understand the oceans well enough to be sure that what we're doing now won't be regretted later. As such, I agree with the people who, in reference to traditional knowledge, personal observation, and historic and scientific research, have urged heightened caution in the management of the herring fishery.

Interested in hearing those perspectives, I recently went back to the tapes of the Board of Fish meetings from 20 years ago. I have extracted and labeled the many testimonies delivered by scientists, tribal elders, and subsistence users in their attempts to inspire management strategies more focused on healthy ecosystems, subsistence use, and less wasteful harvest.

I'm excited to share the audio with you - you can access it at http://herring.rocks. The amount of knowledge and experience shared in these testimonies is vast and compelling, and I encourage readers to give them a listen. The elders who gave testimony back in 1997 watched herring populations dwindle across Southeast in recent decades, and learned about healthy ecosystems from their own grandparents, who may have lived to see the first reduction plants installed in the late 1800s. These beautiful testimonies are delivered not out of self-interest or greed, but in the shared interest of everybody living in Southeast Alaska, and in recognition of a shifting baseline for herring.

Submitted By
Peter
Submitted On
12/14/2017 5:20:24 PM
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~~Dear Board of Fisheries,

My name is Peter John Karras Jr. born and raised my uncle Mark Jacobs Jr. My father Peter J.Karras Sr. he arrived in Sitka,Alaska during the late 1940's when the herring spawn was from Salsbury Sound to Redoutbt.

The Herring Sac Roe fishery has a long and contentious history. Since the tribal community starting writing resolutions to stop the herring fishery in lower Chatham decades ago, subsistence users have been given excuses for one reason the commercial fishery must happen or another. But every conscientious examination of the issue shows that conservation and subsistence use must take precedence over a commercial sac-roe fishery.
Everyone wants a piece of the pie, but the rule of law says that whoever had the pie first should keep it. When it comes to herring, the Tlingit people have had a relationship with herring since time immemorial, herring is their pie to share, and for decades the tribal community in Sitka has demanded more conservation of the herring.

The fundamentals of conservation dictate that we should err on the side of caution when it comes to managing populations. Herring fisheries up and down the Pacific Northwest Coast have collapsed, and the Sitka Sound population the last sizable population. The fundamentals of fishery management dictate that we manage this last viable population conservatively.
Herring play a fundamental role in the marine ecosystems that support all of Alaska's fisheries. Yet the sac-roe fishery is extremely wasteful. Subsistence users have always known, and Alaskan statute dictates, that wasteful harvest is unethical. Yet the sac-roe fishery is mostly waste. It's like killing herds of deer but only harvesting the livers. Everything but the roe is ground up into fish meal for fertilizer or worse, to feed farmed fish, including BC salmon farms. Common sense would dictate that these herring are more valuable feeding endangered wild Alaskan salmon than supporting the threat of farmed salmon.

I am in favor of total stopping of fishing,gathering,netting,roe harvesting,herring eggs on branches,kelp,ect,ect. until the herring is able to recover to past numbers. This may take 2 years,5 years,10 years. Because when herring are doing good,we (people) are doing good.

I believe that if children 5 to 10 years old were allowed to decided what to do and were giving ALL the information. They would decide on allow the herring to recover. Look at East Coast, Southern West Coast (Washington,Oregon,California). FISHED OUT!!!

Bring people in from communities the went through what they and their communty went through after waters near and around their communtiy were FISHED OUT!!!

I wish I could type faster I have more to say.... I plan to be in attendance.

For these reasons, based on traditional knowledge that stretches back thousands of years longer than ADF&G's limited data, based on decades of testimony from Sitkans of every race, I urge the board to support Proposal 99, to cap the sac-roe fishery at 10% of biomass.

Sincerely,

Peter Karras Jr

Submitted By
peter roddy
Submitted On
12/27/2017 1:15:43 PM
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I wholeheartedly support the Department of Fish and Game proposal eliminating the Southeast Dungeness Crab Management plan. This misbegotten unscientific monstrosity has been wildly inaccurate from it's inception. Twice its idiotic algorithims have shortened the season, most recently doing horrible damage to the fleet, the processing sector, and consumers: harvesters lost income as did processors and their employees, and our markets lost faith in us a reliable suppliers . Drive a stake into the heart of this monstrosity. Kill it dead.

PVOA BOF Comments **Petersburg Vessel Owner**
PO Box 232 Petersburg, AK 99833 (907) 772-9323 email: pvoa@gci.net

December 28, 2017

Alaska Department of Fish and Game
Board of Fisheries
PO Box 115526
Juneau, AK 99811
Via email: dfg.bof.comments@alaska.gov

RE: Comments on Southeast Shellfish and Finfish Proposals January 11-23, 2018

Dear Chairman Jensen and Board of Fisheries Members,

Petersburg Vessel Owner's Association (PVOA) is composed of over 100 members participating in a wide variety of species and gear type fisheries in state and federally managed waters. An additional thirty businesses supportive to our industry are members. PVOA members fish throughout Alaska from Southeast to the Bering Sea. Targeted species include salmon, herring, halibut, sablefish, crab, shrimp, sea cucumbers, and geoducks.

We appreciate the opportunity to provide these comments on the upcoming meeting. Due to the diversity of our membership, PVOA works hard to remain impartial on allocative proposals between commercial herring and salmon gear types. We do support the *Southeast Alaska Enhanced Salmon Allocation Management Plan* passed by the Board in 1994. You will find we took no position on salmon proposals that we felt would not help provide the fair and reasonable distribution of enhanced fish in the value allocations of (1) seine – 44 - 49 percent; (2) hand and power troll – 27 - 32 percent; (3) drift gillnet – 24 - 29 percent in accordance with the management plan.

Proposal 53 – No Position
5AAC32.125(d)…At least one buoy on each Dungeness crab or ring net must be legibly marked with the permanent ADF&G vessel license plate number of the Dungeness crab vessel operating the gear. The buoy, or multiple buoys attached to a Dungeness crab pot or ring net, may not bear more than one vessel license number.
5AAC34.051 (a) At least one buoy on each king crab pot or ring net must be legibly marked with the permanent ADF&G vessel license plate number of the king crab vessel operating the gear. The buoy must bear only the number of the vessel used in operating the gear.
5AAC35.051 At least one buoy on each Tanner crab pot or ring net must be legibly marked with the permanent ADF&G vessel license plate number of the Tanner crab vessel operating the gear. The buoy must bear only the number of the vessel used in operating the gear.

We are concerned this proposal could create potential for enforcement issues. Currently, all buoys attached to commercial fishing pot gear must display the ADF&G number of the vessel the gear corresponds to and it is not legal for a vessel owner to haul gear that has another vessel's ADF&G number. If a permit holder wanted to switch vessels midseason, as proposed, the buoy would have the wrong number when the permit holder switched vessels.

Proposal 54 – Oppose

PVOA members oppose a decrease in the Dungeness pot limit at this time and have done so each time similar proposals have been presented since 2006. While some fishing grounds have become more crowded due to the loss of once viable habitat to sea otters, not all grounds are overly saturated, especially in the fall season when fewer permits fish and more area is open.

Our membership believes the integrity of the tier system for Dungeness pot permits should be maintained and it is important to them that all permits be treated fairly if any increase or decrease in pot numbers were to occur.

Proposal 55 – No Position

In 2016, there were 71 Dungeness permits that did not fish including two-300 pot, three-225 pot, 13-150 pot, and 53-75 pot permits.[1] It is likely that this maximum pot limit increase would utilize the permits that are currently latent and increase the number of pots in the water rather than decreasing them as intended.

This proposal could also create an issue for permit holders that are currently stacking two permits to meet the maximum 300-pot vessel limit. A partnership with two 150-pot permits would be reduced to 200 pots under this proposal, while a permit holder of a single 300-pot permit would not suffer any reduction.

Proposals 56, 57, 58, 82, 83, 84, 95, 96, 100, 105, 106, 167, 168 - Oppose

PVOA opposes the various proposals seeking to close waters or repeal subsistence, personal use, or commercial fisheries. The above proposals lack sufficient explanation of a biological concern and unless there is a documented scientific need for conservation, we do not support limiting access to fisheries through area closures or repealing quotas and Guideline Harvest Levels (GHLs). PVOA has confidence in the Emergency Order authority given to the department to open and close fisheries in response to changes in abundance. And therefore see no need or reason to permanently close fisheries.

Proposal 59 – No Position

We question the need and reasoning to permanently close this sport fishery that can be and has been closed annually by Emergency Order since 2005. When it comes to fisheries closures in general, we prefer the annual Emergency Order process to any permanent closure that makes reopening a fishery more complicated for users and the department in the future.

Proposal 60 - Oppose

The Sitka Sound Special Use Area is intended to limit commercial and sport harvest and maintain access to personal use and subsistence harvest around Sitka. While this proposal seeks to release crab, it is asking for a commercial operation in a Special Use Area and we don't support this change.

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[1] Fishery Statistics: Earnings and Participation. State of Alaska, Commercial Fisheries Entry Commission. https://www.cfec.state.ak.us/bit/MNUCRAB.htm

Proposals 61, 62, 63, 65, 72, 74, 93, 104, 108 – Support
We are supportive of these efforts to provide more access and opportunity for commercial fishermen by increasing areas or creating new fisheries.

Proposal 64 – Support
Red king crab is an increasingly valuable resource and we are seeking a way to allow fishermen that have invested in the fishery to profit when the harvestable surplus is between 50,000 and 200,000 pounds of legal male crab. The minimum threshold to prosecute the fishery was lowered from 300,000 in 2002 on the request of fishermen and processors in response to rising prices. These prices have continued to increase and we are seeking a solution to allow commercial fishermen and the State to profit off this resource in years with abundance of less than 200,000 pounds of harvestable surplus. Just 50,000 pounds of harvestable surplus is worth $500,000 or more in ex-vessel value to fishermen.

We know the department is concerned that Guideline Harvest Levels (GHLs) could be exceeded in specific areas under this management policy; this is a concern of ours also. We are not looking to use this proposal to shift allocation away from personal use fishermen.

We believe it is possible for the fleet and department to work together to accomplish this Equal Quota share fishery. It is likely that two or more permit holders would fish the same vessel and 20-pot limit. This would make the fishery more economical for the fishermen and relieve some of the department's management concerns, as it will be easier to target area specific GHLs and close areas as the harvestable surplus is caught with less vessels participating in years of lower surplus.

The Equal Quota Share system would also give more time for permit holders to catch their share. All 59 permits would not be forced to fish at once. The ability to fish their red king crab Equal Quota Shares around other fall fisheries would decrease the amount of vessels participating in the fishery at a given time and furthermore ease management of area specific GHLs.

If you compare the catch data of the Golden King crab fishery in Southeast Alaska, you'd find that 76,829 and 61,586 pounds were harvested in the 2015/2016 and 2016/2017 seasons respectively, and there are 48 permits eligible to fish GKC[2]. This fishery is currently managed for area specific GHLs. We are asking for a similar harvest or higher, depending on abundance, for 56 eligible permits, under conditions that will likely reduce the number of vessels fishing at a time.

If necessary, we are supportive of trying alternative management solutions to make this fishery work as an Equal Quota Share system. Alternatives could include, but are not limited to:

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[2] Stratman, J., T. Bergmann, K. Wood, and A. Messmer. 2017. Annual management report for the 2016/2017 Southeast Alaska/Yakutat golden king crab fisheries. Alaska Department of Fish and Game, Fishery Management Report No. 17-57, Anchorage.

Petersburg Vessel Owner's Association
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-A bay-by-bay Quota Share limit for each permit holder
-The board could decide the number of permits that each bay can sustain annually and the permit holders that register to fish could randomly be assigned a bay to ensure there isn't too much effort in any specific area. A survey-based metric could also be added to help identify the appropriate number of permits to fish each bay on a year-by-year basis.
-In years of lower abundance, Equal Quota Share harvest could be limited to non-surveyed areas.

We understand there are concerns and negative trade offs to this management style, namely fleet consolidation. However, under this alteration to the management plan between $500,000 and $2 million in ex-vessel value of crab will be harvested that would otherwise be forgone revenue. We added a sunset of one Board cycle to address these concerns and allow the Board to evaluate the costs/benefits of the program after a trial period.

Proposal 66 – Support
As you are aware, in 2016, the Golden King crab fishery in Lower Chatham was closed before the GHL had been met while there was only one participant in the fishery and a storm. When the only participant asked for an extension due to weather, he was denied. This is a serious safety issue and we support this precautionary measure.

Proposal 67 – Oppose
There are usually three vessels, all represented by PVOA, fishing Golden King crab in the fall months. We don't understand the cited need for three months to review fishery data from so few participants, or the need to match Aleutian Islands management, with the current mandatory logbook and daily call-in criteria. The department is receiving real-time catch data.

Proposal 68 – Support
The industry submitted this proposal as a way to structure the GKC management plan to ensure that all areas open for at least a brief fishery each year. In 2016 and 2017 the department and industry held last minute Task Force meetings in January and fishermen were faced with the possibility of pre-season area closures in East Central and the Northern Area. This proposal will allow better stability in the fishery for participants and help manage their expectations to help them plan for the fishery, or decide to participate in another fishery.

We all know there is no legislative money available for surveys, the Gold King Crab Observer program was a part of the ADF&G budget cuts in 2015, and it is unclear what the parameter would be for an area to re-open if it is closed pre-season. Opening the fishery in all areas, even for a limited time, is the only option to find out what is in an area. Closing an area based only on the previous seasons catch rates is not sound management.

It is also important to note that this is solely a commercial fishery. Golden King crab are found at such great depths that substantial gear, buoy line, and hydraulic equipment is necessary to harvest them.

Proposal 69 – Oppose

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PVOA does not support lowering the GHLs as proposed based off the Maximum Sustainable Yield (MSY) data computed from harvest data from 2000-2017[3]. While this data captures the recent trend in the fishery, it excludes the highs in the fishery from the 1980's and the lows in the 1990's. Inclusion of these historic harvest trends, and not solely the last 18 years, in computations would result in more cognizant MSY data.

We also believe that lowering the upper end of the GHLs ties the hands of managers as the GKC stock rebounds and want to retain the ability to catch King crab when they are available.

Proposal 70 – Oppose
This proposal does not cite a biological reason to reduce the number of pots allowed in the fishery. We are especially concerned if this proposal were to pass in combination with Proposal 69, that would adjust the GHLs for the GKC fishery based off of the last 18 years of catch using a 100-pot limit. The result would make the new GHLs and reference MSY data incomparable to future GKC seasons.

A 20-pot reduction in this fishery would significantly change the fishery. Vessels don't currently haul their 100 pots daily. If the pot limit were reduced, however, a high percentage of the fleet would haul all 80 pots daily and soak times throughout the fishery would be greatly reduced. We expect this would make CPUE data from past seasons incomparable to CPUE data in future fisheries. Also, handling of crab would be increased, as undersized crab would have less time to filter out through escape mechanisms.

AML in Petersburg estimated over 230 new King crab pots were shipped to Petersburg in 2017. These cost up to $1,000 a pot before the cost of buoy line, buoys, and shipping the pots and line from Washington to Petersburg. This isn't a full estimate of new gear purchased recently, as vessels often load their decks when they run North from Washington to help lower shipping costs of new gear and offset fuel costs for the traveling vessel. This pot reduction would be a significant loss in investment.

Proposal 71 – Support
This proposal would make the regulations regarding sport, personal use, and subsistence fishing after de-registering from the commercial Tanner crab season more consistent with Dungeness and King crab regulations. It will also reduce the opportunity for enforcement issues.

Proposal 73 – No Position

Proposal 75 – Oppose
The shrimp Management Plan does not designate a personal use priority. In the future, if the department finds a harvestable surplus in Section 11-A, we would support re-opening the area to both commercial and personal use fisheries.

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[3] Palof, K., & Olson, A. (2017). *Golden king crab surplus production model analysis* (State of Alaska, Department of Fish and Game).

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Proposal 76 – Support
Since this proposal would mirror the current regulation for legal shrimp pot gear in the commercial fishery, we do not expect any enforcement issue. The majority of shrimp pots used for sport fishing in Southeast are the same make used for the commercial fishery and readily available throughout Southeast.

Proposal 77 – Support
This is a housekeeping proposal since the sport Abalone fishery was closed in 2002.

Proposal 78 – Support
District 8 is separated by Mitkof Island and the shrimp stocks on the North and South end of Mitkof are closer linked to Fredrick Sound and Sumner Strait. We support dividing the district and adding the portions to District 10 and District 6.

However, we don't believe there is a need to lower the GHLs overall from 168,000 to 155,000. Shrimp stocks are cyclical and we don't want to limit the fleet's ability to harvest in times of high abundance. In times of lower abundance, the upper end of the GHL range cause no harm, as the fisheries in these districts are managed in-season based off survey and commercial CPUE.

Proposal 79 – Oppose
In order to implement this proposal, we expect the fishery would have to be closed for a season. It doesn't seem practical to allow a fishery in the fall and then again in the spring to make the switch to a spring only fishery.

Proposals 80, 81 – Oppose
This is an unequal reduction in pots between the 'small' and 'large' pot category that were determined to be equivalent by a previous Board. Fishermen using 'small' pots would loose 28.5% of their gear and fishermen using 'large' pots would loose 25% of their gear.

Requiring a fixed number of pots and distance between each pot would incur expense to all fishermen, except the proposer, who would have to re-configure their current groundline sets. Shrimp pot fishermen have been required to purchase new gear many times in the past as regulations have changed and we oppose these proposals that would incur more expense to them.

Limiting fishermen to one pull of each pot per day is not enforceable.

Proposal 94 – Support
We do not believe passing this proposal lowering the amount of herring roe 'Reasonably Available for Harvest' in regulation would reduce the amount of herring roe that is actually being harvested. And we are not supporting this proposal as a means to reduce subsistence use. We believe the subsistence harvest is lower than reported and ask for an ADF&G survey, perhaps similar to the sport fish salmon creel survey, to provide meaningful data.

Proposal 97 – Oppose

The winter food and bait Herring fishery provides bait for the Tanner and King crab fisheries that open sometime in the second week of February. Delaying this fishery until December would not provide sufficient time to catch Herring before the start of these crab fisheries.

Proposals 98, 99 – Oppose
These proposals lack sufficient explanation of a biological concern or documented scientific need for conservation and would significantly harm fishermen and processors invested in the fishery.

The Sitka Sac Roe Herring fishery already has a conservation measure built in and historical returns show there is no need to provide more protection. In order for the fishery to occur, there must be an available spawning biomass above a 25,000 tons threshold. This threshold has increased from 6,000 in 1977 to 7,500 in 1983, to 20,000 in 1997, and 25,000 in 2009 as the biomass has increased.[4]

Proposals 101, 102, 103, 107 – No Position
We represent a combination of Herring purse seine, gillnet, and roe-on-kelp fishermen and work hard to avoid allocation and gear conflicts within our membership.

Proposals 109, 110 – No Position
A system similar to proposal 109 and 110 was tested in 2017, and fishermen found it to be a poor management tool. Groups have investments in gear together and it was hard to re-organize for the optimum number of permits per pen as determined by the department. In some cases, this included kicking people out of a group in order to form groups of 6.

We also question the legality of the proposals under the Limited Entry Act, as each proposal would allocate fish to a closed class of participants within the fishery.

In the herring roe-on-kelp fishery, the management tool used to control the amount of herring harvested is 'Blade Allocation' determined by the number of permits fishing in a pen and the abundance of herring. Pens with more permit holders are allocated more blades, the assumption being the more blades a pen holds, the more Herring will be taken to cover them with roe. Between one and four permits can fish in a pen.

Proposals 109 and 110 seek to reduce the number of pens in the fishery and therefore number of participating permits. In proposal 109, fishermen that have previously participated in the fishery with between one and three permits in a pen, would be prohibited from the fishery, unless they reorganize to form four-permit groups. It is easy to imagine circumstances under which this would bar some permit holders from the fishery.

In 2005 in the case Grunert V State of Alaska, the Supreme Court of Alaska found the Board's (Board of Fisheries) authorizing statute, AS 16.05.251(e), permits the board to allocate fishery

[4] Hebert, K. 2017. 2018 Report to the Alaska Board of Fisheries: Southeast Alaska–Yakutat herring fisheries. Alaska Department of Fish and Game, Fishery Management Report No. 17-58, Anchorage.

resources "among personal use, sport, guided sport, and commercial fisheries," but not "between" the fisheries. The Limited Entry Act defines "fishery" as "the commercial taking of a specific fishery resource in a specific administrative area with a specific type of gear."[5] Limiting the take of Herring only to pens with a certain number of permit holders could be argued to be allocating Herring to only these pens, and away from pens with less permit holders.

Proposal 111 – Oppose
We are concerned for the viability of Herring if they are placed in smaller pens. Members also oppose changing the current regulations for pens due to the expense of building them, increasingly restrictive management, and fears of being restricted down to the half pen.

Proposal 112 – Oppose
The proposed closure of the fishery to closed pen participants is not based upon a documented scientific need. The department already has a conservative mortality rate for herring in the roe-on-kelp fishery using closed pens even though the fish are released. This is 75% mortality.[6] Our members believe the actual rate is much lower, but accept the high mortality assumption because it creates a protection measure within the management of the fishery.

Proposal 114 – Support
The retention and sale of live sablefish is a current practice in California and Vancouver, Canada and we support Southeast fishermen having the opportunity to profit off this market also.

Proposal 116 – Support
Sport harvest of Sablefish has seen a rising trend from 6,705 fish in 2010 to 10,316 fish in 2016. Sablefish harvest outside of District 12 represents 65-71% of the total Southeast Sablefish harvest in 2015 and 2016 and 95% of harvest in the sport fishery is by non-residents.[7]

Many fisheries are facing more restrictive catch limits in 2018. IPHC will likely reduce the catch limit for Pacific halibut in 2C in 2018, increasing the pressure on other sport fish including Sablefish. Our membership would support a more conservative limit of 2 daily, 2 in possession, and 4 annual for nonresidents as well. We believe the limit should be consistent throughout Southeast Alaska, as proposed.

Proposal 117 – Support
The use of Sablefish pots is currently only legal in subsistence areas and our members support legalizing them for personal use areas also. It would make regulations simpler and more consistent

[5] Michael GRUNERT, Appellant, v. STATE of Alaska and Chignik Seiners Association, Inc., Appellees.
[6] Hebert, K. 2017. 2018 Report to the Alaska Board of Fisheries: Southeast Alaska–Yakutat herring fisheries. Alaska Department of Fish and Game, Fishery Management Report No. 17-58, Anchorage.

[7] Chadwick, R. E., T. Tydingco, and P. Fowler. 2017. Overview of the sport fisheries for groundfish and shellfish in Southeast Alaska through 2017. Alaska Department of Fish and Game, Special Publication No. 17-16, Anchorage

throughout Southeast. Fredrick Sound, on the North end of Mitkof Island, is a personal use area for Sablefish and this would allow our residents to set pots closer to town.

Proposal 118 – Support
Many longline fisheries throughout the State match opening dates with the Federal Pacific halibut and Sablefish fisheries. There are only 22 permits including hook-and-line and pot gear for this fishery and it would shorten their seasons to be able to fish their Southern Southeast Inside (SSEI) quota *on separate trips*, before or after their Federal trips. Rather than reloading their vessels with a baitshed and longline gear, or pot gear just to fish their SSEI permits under the current season. Currently, a few of our vessels load gear to fish Federal Sablefish in March, unload the gear to fish Sitka Sac Roe Herring in March/April, and then load their Sablefish gear a second time in June to fish their SSEI Sablefish quota. This proposal will simplify the timing of these fisheries and allow the SSEI Sablefish State fishery to evolve with the Federal Sablefish fishery.

Proposal 119 – Oppose
This proposal caters to three pot permits currently allowed to fish in September. We would support longer season dates if the 19 hook-and-line and 3 pot permits were all incentivized equally.

Proposal 120 – Support
CFEC made pot gear legal for the SSEI Sablefish C61C permits effective May 11, 2017. Currently, the SSEI sablefish fishery using *longline gear* opens 8:00 a.m. June 1 and closes at 12:00 noon August 15. The SSEI sablefish fishery using *pot gear* opens at 8:00 a.m. September 1 and closes at 12:00 noon November 15. Now that there are more than three permits eligible to fish pots, it is more cohesive to allow both gear types during one season.

We expect minimal gear conflicts from allowing one season for hook-and-line and pot gear due to the small amount of permits in the fishery that are fished on an even fewer amount of vessels. With such a minimal amount of participants, it should be easy for vessel operators to communicate with each other concerning the locations of their gear.

Proposal 121 – Oppose
The Supreme Court of Alaska ruled the Board can only allocate fishery resources "among personal use, sport, guided sport, and commercial fisheries," but not "between" the fisheries in Grunert V State of Alaska. Since C61C permits now allow the use of hook-and-line or pot gear as of May 2017, increasing the allocation for vessels using pots is likely allocating within a fishery and illegal[8].

Proposal 122 – Support
The North Pacific Fishery Management Council's fishery management plan for Groundfish of the Gulf of Alaska finds 'Sablefish in the Bering Sea (BS), Aleutian Islands (AI), and GOA are considered to be of one stock. The resource is managed by region in order to distribute exploitation throughout the range of the stock.'[9]

[8] Michael GRUNERT, Appellant, v. STATE of Alaska and Chignik Seiners Association, Inc., Appellees.
[9] North Pacific Fishery Management Council. NOAA. *FMP for Groundfish of the GOA*. 2017. 65-66.

NMFS has been tagging and releasing sablefish since 1972 and have found 'Several tagging studies have shown sablefish to be highly migratory for at least part of their life cycle, with the pattern of movement related to fish size. Young sablefish routinely undertake migrations of a thousand miles or more, and older fish commonly travel the same distance on a return journey. In general, these studies show that small fish in the Eastern areas of the GOA travel North and Westward from their release sites and large fish tagged in the Western areas of the GOA move Eastward. Large fish tagged in the Eastern areas of the GOA have a tendency to remain there.'[10]

Sablefish tagging efforts are centered in three main areas 1- tagging of adults in offshore waters of GOA, BS, and AI; 2 - adult sablefish in inside waters of Chatham and Clarence Straits; 3 - juvenile sablefish in interior bays of Southeast Alaska. NOAA research vessels release these tags, including the majority of the 70,000 released in inside waters. This tagging research has found:

'Clarence Strait sablefish appear to be more directly connected geographically to the GOA than Chatham Strait, showing about a 30% chance of moving, mainly into the EGOA and BC waters. Close to half (47%) of the recovered fish from Clarence Strait releases were recovered in Clarence Strait, however, a high percentage (26%) were also recovered in BC.'[11]

PVOA members have low confidence in the isolated Sablefish surveys for the SSEI fishery. As Sablefish are one stock and highly migratory, they believe it would be more appropriate to manage the SSEI fishery by the more-encompassing Federal survey data. This survey includes nearly all areas where adult Sablefish are found in the Alaska Exclusive Economic Zone (EEZ) and depths range from 82-547 fathoms. In Southeast, this includes the entire offshore Eastern Gulf of Alaska down to Dixon Entrance. The same stations are sampled each survey year and surveys typically occur in odd-years. Stations are located 20-30 nm apart[12].

The SSEI Sablefish Equal Quota Share fishery could easily be managed by the Federal survey data by adjusting the Annual Harvest Objective (AHO) up or down by the same percentage as the Southeast Outside Acceptable Biological Catch (ABC) each year.

Proposal 123 – Oppose

Lingcod harvest increased between 2014 and 2017 by just over 29,000 round pounds and Lingcod catch is expected to increase in 2018, as the prices have been high in recent years. We fear lowering the size limit could increase removals beyond a healthy level for the stocks.[13]

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[10] NOAA Fisheries, Alaska Fisheries Science Center. Auke Bay Laboratories. *MESA: Sablefish Tag Program.* Accessed December 18, 2017. https://www.afsc.noaa.gov/ABL/MESA/mesa_sa_sable_stp.htm.

[11] Echave, K. B., D. H. Hanselman, and N. E. Maloney. 2013. Report to industry on the Alaska sablefish tag program, 1972 - 2012. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-254, 47 p.

[12] Sigler, Michael F., and Chris R. Lunsford. "Survey protocol for the Alaska sablefish longline survey." Alaska Fisheries Science Center: 1-10. https://www.afsc.noaa.gov/ABL/MESA/pdf/LSprotocols.pdf.

[13] Olson, A., J. Stahl, M. Vaughn, K. Carroll, and A. Baldwin. 2017. Annual management report for the Southeast Alaska and Yakutat groundfish fisheries, 2017. Alaska Department of Fish and Game, Fishery Management Report No. 17-54, Anchorage.

Proposal 125 – Oppose
This management tool is used in combination in an attempt keep the sport fishery within their 16% of the TAC allocation, however, in the last 3 years the sport take has been 25% of the TAC or higher. The harvest of nonpelagic rockfish in Southeast Inside waters has increased by 90% from 2012-2016. We support the current retention requirement as a tool to prevent overfishing and selectivity. [10]

Proposal 126 – Oppose
We don't believe personal use and subsistence users should be burdened by the expense of these mechanisms that help release non-pelagic rockfish at depth. The amount of personal use and subsistence users targeting rockfish is much lower than in the guided sport sector. In recent years, subsistence users have harvested less than 5% of the TAC for this fishery.[10]

Proposals 127, 128 – Support
Similar to the growth of targeting sablefish, the guided sport fleet in Southeast has expanded in its harvest of rockfish from 94,538 fish in 2007 to 173,847 fish in 2017. As the proposer states, these are primarily nonresident fishermen.

If you look at only the Sitka area, the sport harvest of rockfish has increased from 38,264 fish in 2007 to 71,214 fish in 2016[14].

Proposals 132, 133, 134 – Oppose
Proposal 132 would create a sport fishing King salmon bag limit and close waters in Districts 11, 12, 14, and 15 from April 15 to June 30 based on preseason forecasts of Taku River King salmon.

Proposal 133 would base the duration of the troll and gillnet openings in Districts 9, 12, and 14 from April 15 to June 30 on the preseason forecast of King salmon.

Proposal 134 would close the spring troll fishery from April 15 to June 15 in Districts 9, 12, and 14 when the Juneau area sport fishery is closed to King salmon retention.

We oppose these proposals as they don't consider the other salmon species returning to these areas during these times or provide sufficient opportunity to achieve wild fish allocations in 5 AAC 33.363 *management guidelines for allocating Southeast Alaska pink, chum, and sockeye salmon.*

Proposal 137 – Oppose
Under current regulations, in times of King salmon abundance index greater than 2.0, there is a resident bag limit of 3 King salmon 28" or larger and there is no possession limit. This proposal would double the limit and create a possession limit. Three king salmon is a lot for a household to consume, doubling this limit seems excessive.

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[14] "Regional Summary Estimates, Estimates of Southeast Alaska sport Rockfish harvest, 2007–2016." Alaska Sport Fishing Survey. Accessed December 18, 2017. http://www.adfg.alaska.gov/sf/sportfishingsurvey/index.cfm?ADFG=region.results.

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Proposal 138 – Support
This proposal would clarify an enforcement issue. If a person trolling for King salmon with two rods were to catch a Coho, it is illegal to retain the Coho. We would support the retention of any salmon, within bag limits, caught while trolling for King salmon with two rods.

Proposal 139 – Oppose
5AAC33.364 (C)… the board will, in its discretion, adjust fisheries within special harvest areas to bring the gear group within its allocation percentage.
(D) The department may not make inseason adjustments or changes in management in or out of the special harvest areas to achieve the allocation percentages established in (a) of this section.

The Board of Fisheries is designated with the task of allocating fishing areas and fish resources amongst user groups. It is not the job of regional hatchery operators or ADF&G managers to determine gear rotations inseason. NSRAA has spent several years assuming control of the Southeast Cove operation and should have had an allocation plan to present to the Board where it would be open to public comment.

Proposals 140, 141, 143, 145, 153, 154, 156, 157, 158, 174 – No Position
All of these proposals would significantly harm one or more salmon gear types by negatively impacting their access to enhanced chum salmon, wild pink salmon, or wild sockeye salmon. As we stated before, PVOA takes no position on any proposal that we deem will not aid in achieving the fair and reasonable distribution of enhanced and wild fish as outlined in section 5 AAC 33.364 *Southeast Alaska Enhanced Salmon Allocation Management Plan* and section 5 AAC 33.363 *management guidelines for allocating Southeast Alaska pink, chum, and sockeye salmon between commercial net fisheries.*

Proposal 142 – Support
This proposal seeks to adjust any allocation imbalance between the gillnet and seine fleet in Deep Inlet, based on a 5-year rolling average, as per the *Enhanced Salmon Allocation Plan.*

Proposal 144 – No Action
The troll fleet has been behind in their enhanced chum salmon allocation for many years and we support only the portion of this proposal that would allow them to fish in the Deep Inlet THA during cost recovery efforts. During this time there are very few seine vessels catching cost recovery in a small portion of the THA and this could make a difference in their ability to catch their allocation.

We are apprehensive to allow troll vessels during other net fisheries due to our concern for conflicts between the gear groups. When the seine and gillnet fleet fish Deep Inlet it is crowded and vessels are lined up on every available hook off. If this portion of the proposal were removed, we would support the proposal.

Proposal 146 – Oppose
The *Southeast Alaska Enhanced Salmon Allocation Management Plan* is the result of three-years of work by the Southeast Alaska Allocation Task Force to provide fair distribution of enhanced salmon

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amongst the seine, gillnet, and troll fisheries. We do not support any proposal that seeks to undermine or alter this plan.

Proposal 148 – Oppose
This proposal seeks to increase the time and area available to guided sport salmon fishermen targeting enhanced King salmon in the Herring Bay THA. This sport fishery has become increasingly popular while the 3% enhancement tax to fund operation of the Herring Bay THA is paid for solely by commercially landed salmon.

Under this proposal, King salmon harvested in this area would not count towards the nonresident annual limit. This would likely increase sport fishing activity in this THA after annual bag limits have been caught in other areas.

Proposal 149 – Support
This proposal would allow NSRAA and fishermen to utilize late returning Coho in Deep Inlet without an Emergency Order by extending the season to October 31.

Proposal 150, 176 – Support
Currently, Crawfish Inlet is a cost recovery only fishery. Proposal 150 will allow all salmon gear groups in the SHA. However, aligning the troll fleet with their enhanced salmon allocation is the priority for Crawfish Inlet, as seen in proposal 176. We support this effort to help the troll fleet obtain their 27-32% of enhanced chums.

Proposal 151 – Support
We support this THA management plan from SSRAA to allow access to enhanced King salmon returning to Caroll Inlet.

Proposals 152, 161 – Support
During the last several Purse Seine Task Force meetings, industry has asked for clarification between posted markers and closed waters listed in the SEAK Commercial Salmon Fishing Regulations book. We support these update to Whitewater Bay and the Anita Bay THA coordinates and are thankful for the work.

Proposal 159 – No Position
Only the Federal Aviation Administration can limit the actions of pilots.

Proposal 160 – Support
In recent years, enforcement has ticketed fishermen for operating a gillnet too close to certain streams within THA's also listed in the Anadromous Waters Catalog. THA's are drawn with ADF&G to ensure they do not include streams important to the spawning and rearing of salmon. This ensures the preservation of wild stocks is not at risk from the operation of salmon nets in the area. This proposal is a clarification of the regulations for both enforcement and fishermen.

Proposal 166 – Oppose

The Hawk Inlet test fishery provides both run timing and strength data for fishermen and the department. It also generates revenue to offset the cost of aerial surveys necessary for inseason management. The ADF&G commercial fisheries budget has taken many cuts since 2015, including to aerial survey money, and we want to maintain this source of revenue.

In some seasons, an index fishery may not open, while a test fishery would, creating a gap in the data. In 2018, the preseason forecast models from NOAA predict less than 3 million pink salmon will be harvested from the Northern Southeast Inside area, making it a possibility an index fishery on the Hawk Inlet shore would not open.

Proposals 169, 170 – Oppose
These proposals would create entirely new drift gillnet areas. The purse seine and drift gillnet areas in Southeast Alaska were determined years ago and creating these new areas is not in the interest of targeting the wild salmon allocations in 5 AAC 33.363 *management guidelines for allocating Southeast Alaska pink, chum, and sockeye salmon between commercial net fisheries.*

Proposal 177 – No Action
5AAC33.364 (D) The department may not make inseason adjustments or changes in management in or out of the special harvest areas to achieve the allocation percentages established in (a) of this section.

As with proposal 139, we are concerned by this request to allow regional hatchery operators and fishery managers to determine gear rotations inseason. It is the Board of Fisheries job to allocate fishing areas and fisheries resources among user groups.

Proposals 185, 192, 193, 194 – Oppose
Access to the majority of salmon fisheries outside of commercial and subsistence fall under the sport fishing regulations and not personal use regulations. These sport bag limits are liberal including 6 of each species daily and 12 of each species in possession of Coho, Chum, Pink, and Sockeye salmon. We are opposed to allowing the use of gillnets for personal use or sport fishing to conserve King salmon in this current time of low abundance.

Proposal 185 would allow gillnets for personal use salmon fishing throughout Southeast Alaska. In 2016 and 2017 only two index streams for King salmon met their escapement goals. These are Keta River and King Salmon River in 2016 and Keta River and Situk River in 2017.

Proposal 192 would allow gillnets for personal use salmon fishing in District 11 where the Taku River has only met King salmon escapement goals in two of the last five years.

Proposal 193 and 194 would allow personal use gillnets in Section 15-A where the Chilkat River has met King salmon escapement once, 2015, in the last five years.[15]

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[15] Heinl, S. C., E. L. Jones III, A. W. Piston, P. J. Richards, L. D. Shaul, B. W. Elliott, S. E. Miller, R. E. Brenner, and J. V. Nichols. 2017. Review of salmon escapement goals in Southeast Alaska, 2017. Alaska Department of Fish and Game, Fishery Manuscript Series No. 17-11, Anchorage.

Proposals 190, 191– Oppose
The Taku River is one of the nine index streams, out of 11, that did not meet King salmon escapement goals in 2016 and 2017. The Taku River has a preseason terminal run forecast of 4,700 fish and the Escapement Goal Range (EGR) of 19,000-36,000 fish.[12] These proposals to increase the Taku River Sockeye salmon bag limit or increase fishing time are likely to increase interaction with King salmon.

Proposals 195, 196 – Support
The annual limit for many nonresident sport fisheries is two times the daily bag limit. We support these nonresident Sockeye salmon limits that create consistent regulations.

Board Generated Proposals 234 and 235 - Oppose
PVOA members are not supportive of the Board Generated Proposals from the October 2017 Work Session. We are apprehensive of the process and short notice by which these proposals were added to the SEAK Shellfish meeting. Furthermore, we don't believe either of these proposals addresses new issues that arose after the call for proposals ending in April of 2017.

Board Generated Proposal 234 would repeal an entire management plan and we are troubled by the process the Board used to add this proposal to the agenda, only three months before the start of the SEAK Shellfish meeting, when the proposal missed the deadlines for the call for both the regulatory meeting and work session accepting Agenda Change Requests. This doesn't give adequate time for the public to be advised of the proposal and debate the best course of action.

It may be time to update this management plan, since areas that were once productive for fishermen have been lost to sea otters and this reduction hasn't been accounted for since the inception of the management plan, however, we do not support this short notice process to update it.

The proposal would also significantly shorten the fall season for the Dungeness crab fishery. There are currently very few commercial fishermen that participate in the fishery into December or even February, and there is no preservation reason to limit their access to this fishery.

We are also opposed to Board Generated Proposal 235 due to the lack of time for users to become aware of the issue. Personal use is accounted for in the Juneau Area where the majority of the personal use red King crab fishery takes place. The other areas open to personal use are very remote and this proposal seems over burdening for the few users.

PVOA's mission statement is to:
"Promote the economic viability of the commercial fishing fleet in Petersburg, promote the conservation and rational management of North Pacific resources, and advocate the need for protection of fisheries habitat."

PVOA BOF Comments **Petersburg Vessel Owner**
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Thank you for your time and dedication in considering public comments. PVOA will have representatives present throughout the January meeting. We are happy to answer any question in person, or by email at: pvoa@gci.net.

Respectfully,

Megan O'Neil

Megan O'Neil
Executive Director

Submitted By
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Submitted On
12/27/2017 1:04:34 PM
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I've fished the Tsiu for 18 years coming up every year in September. The closed area to commercial fisherman should be at least 1/2 mile. I understand the importance of commercial and sport fishing and the need to share the resource. It becomes problematic howver when the commercial guys are herding fish into nets at high speed.

Submitted By
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Submitted On
12/27/2017 9:46:02 AM
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I am a commercial fisherman who has served on the Sitka Fish and Game Advisory Committee for the past 15 years. Our committee takes seriously all public input and I believe the outcome of our meetings reflects this. We spent 2 months holding public meeting to discuss these proposals.

Of particular importance to me is the need for bag and annual limits for non-resident anglers. Our resources are valuable and there is no place for unlimited non-resident take. We all depend on these resources: subsistence, commercial, personal sport, and charter. By placing a generous annual limit now there will be fish for everyone into the future. Waiting for a crisis is wrong. A non-resident angler can take **at least** 52 saltwater fish per day in SE. Adding bag and annual limits **regionwide** for blackcod and sockeye is the right thing to do at this meeting. There is not another state in the country that allows unlimited non-resident angler take on valued fish.

Proposal 116: Support with SFGAC Amendment. The SFGAC voted 10 in favor, 1 abstain, to adopt a nonresident bag limit for blackcod with 2 daily, 2 in possession, 6 fish annual limit, and recording catch. **I support this**. Blackcod is very valuable and this provides opportunity for non-residents but also places an appropriate value on the resource. This is critical.

Proposals 195 and 196: Support establishing non-resident annual limits for sockeye salmon in salt and fresh water. I support these. Sockeye are an important subsistence fish. Limits are best imposed before there is a conflict. Twelve fish is very generous, allows for opportunity for non-residents, but takes a step towards protecting use by subsistence users.

Think a few years out and head off a crisis before it happens. Bag limits and annual limits for non-residents on valuable fish are the best tools for keeping us all catching fish into the future. I would like to serve on the Groundfish committee addressing proposal 116.

ADFG has mismanaged the 12 Mile are shrimp fishery for several years. This area (South of Kasaan into upper 12 mile arm)

is critical to maintaining a personal use fishery. Commercial shrimping and/ or crabbing should be restricted within 5 miles of the communities of Hollis and Kasaan.

Also, the king crab fishery in the unsurveyed areas should never be opened until a proper ADFG survey can be carried out. Opening this area to commercial effort will destroy both the personal use fishery and future commercial fishery. Be sure of what is being opened up before moving ahead.

Respectfully,

Robert A. Andrews
Craig

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12/27/2017 7:09:04 PM
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Alaska Seine Boat Owners Association is a sister organization of Purse Seine Vessel Owners Association. We represent approximately 350 vessels and crews, approximately 250 of which are purse seiners along with 1500 Alaska purse seine crewmen. Our members fish througout the state.

ASBO supports Proposals 140(with modifications), 142, 143, 145, 155(with modifications) and 166.

The general tenor of these proposals are attempts by various user groups to bring the commercial enhanced salmon users into a relatively closer balance than currently exists. The history of this enhanced allocation issue began with the 1994 Enhanced Allocation Plan. ASBO believes that this is an exceptional long term structure to attempt to maintain a fair balance between the user groups.

For over a decade there has been a major shift that continues with the pressure ot the drift fleet, the decreasing opportunity for the smaller boat fishermen who drift who cannot afford IFQ's and no longer maintain their tradttional income from crab or dive fisheries due to sea otter predation, and, aside from 2014's recored dungeness year, have sufferred severe financial harm by these non-enhanced salmon factors. So there has been an increase in fished drift permits by approsximately 30% in the past two decades, most of which has been focussed upon enhanced allocation.

Indeed, in the drift gillnet fisheries targetted on northern wild SE sockeye, vis a vis, Taku, the the Lynn Canal systems of Chilkoot and Chilkat, the drift fleet currently uses sockeye mesh only after the large enhanced DIPAC returns transit through the D111 Taku wild sockeye fishery as well as the D115 Lynn Canal wild sockeye fishery. These drifters are in traditional mixed stock corridors and are currently and historically being managed for wild sockeye bound for the Chilkat, Chilkoot and Taku Rivers.

But, since the advent of large scale DIPAC chum production in 1996, the past two decades have seen a harvest ratio of wild, targetted sockeye of nearly 99 sockeye per summer chum to a ratio of 1 sockeye per 10 enhanced chum salmon. So we have numbers such as 2017 in D115 Lynn Canal, where we had over 1 million enhanced chum salmon harvested in a fishery where the target specie, sockeye salmon, was less than 50,000, for a ration of 20 hatchery salmon per targetted wild sockeye.

Along with this background of a changed fishery, which we do not oppose nor wish to see major changes, we'd just like to remind the board members that the traditional markers of a wild fishery which changes it's target species to a hatchery fish and that had a 99 to 1 wild target of sockeye to one which has 1 wild sockeye per 20 enhanced chums, thereby intentionally changing mesh size and changing early season sockeye harvest rates, thereby skewing the true numbers passing through the fishery.

This is occurring thoughout Southeast with the drift fisheries. District 8 and Chichagof Pass, near Pt. Nemo, often has over a 95% enhanced chum harvest during much of July. These are mixed stock corridors, being managed for sockeye salmon as the target species under the official auspices of the ADFG Wild Stock Sustainable Managemement Policy. These mixed stock corridors are being utitlized to harvest the bulk of what is causing the imbalance in the Enhanced Salmon Plan.

We bring this to your attention so that you will recall in our opposition category that we do not wish to see this continued with the troll fishery proposals. The experimental June chum fisheries in Chatham Strait on Homeshore and Hawk Inlet should be allowed to sunset.

We also bring this to your attention as you will see proposals that we vigorously oppose that come from drifters and their association that seek to punish traditional, historical fisheries that don't even occur in years of lowered abundance. Northern Chatham Strait hasn't been fished, safe for test fisheries, in 2008,2010,2012,2014 nor 2016 due to low wild pink salmon returns. Even though we could have harvested millions of enhanced chum salmon. This wouldn't occur in a drift fishery. They'd just catch a higher rate of enhanced chums.

No matter what the Enhanced Allocation Plan of 1994 has the power to do or undo, ASBO believes there needs to be three guiding principles in the application of the Plan.

A. The Enhanced Salmon Policy does not trump the Wild Sustatinable Salmon Policy. Period.

It is more important to get our balanced escapement needs met than the harvest differential rates of the different gear groups. The purse seine fleet doesn't believe in managing wild stock fisheries nor corridors for the specific targetting of enhanced salmon. Seine fisheries in all mixed stock corridors in SEAK are based solely on the wild salmon transitting those areas.

We believe hatchery harvest to be better achieved through terminal harvest.

But take note that we do not oppose the current mixed stock drift fisheries, nor are we asking to take away historical time and area away from the drift fleet.

B. The Plan provides for parameters for change, and we need change in 2018.

The Plan, while imperfect, sets long-term parameters. Imperfect. Yeah. Who expected Hidden Falls to fail this past decade. That's part of the seine problem. Who expected trollers to figure out how to get chums to bite. We didn't recognize that even with over 20% of SEAK coho production being enhanced and trollers harvesting 2/3 of them, that wouldn't be enough. Who expected the drifters to increase their reliance on enhanced salmon. Who expected we'd all increase our reliance on enhanced salmon.

But while it's the best we've got and will get for a Plan, we must avoid knee-jerk responses. That is why we advocated for minor changes in 2009 to fishing time for seiners, perenially below their range as well as some minor changes that year for drifters, perenially above their range. And we made some modifications to most of our troll programs because the troll fleet is and will always be belowe their range.

In 2009 we made some changes. In 2012 we made some bigger changes.

In 2015 we turned back the clock due to difficult economic conditions with the drift fleet and even this major giveaway to the drift fleet apparently couldn't satisfy their hunger for ever larger and growing enhanced salmon harvest.

Which brings us to 2018. We recognize that there is no magic bullet here, just a slight turning back of the tide.

and

C. Any changes to the Enhanced Allocation Plan should never take a gear group completely out of a historical fishery.

We all have boat payments. We plan for our future and the future of our children and grandchildren. When we fish an area for 10 years, 20 years, 30 years, we expect to be able to go back and fish that hatchery area next year also. So changes made to harvest imbalance must never, ever exclude a traditional fleet's harvest.

So the idea of fishing time adjustments, say 2 days seine per day of gillnet during times of imbalance, or 2 days of gillnet to 1 day of seine when the imbalance shifts the other way,. That's the way to make incremental changes to allocation. Even if the imbalance is so bad that a gear group only gets one day a year. Complete opposition to the elimination of a traditional, historical fishery is all we commercial fishermen have ground to stand upon.

If we are not completely opposed to elimination of traditional, historical fisheries then sportsmen, Canadians, Washingtonians, Columbia River tribes and many others would be more than happy to eliminate all of us.... Gillnetters, Trollers as well as Seiners.

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Proposal 140-SUPPORT

We support a 2 day seine to 1 day gillnet rotation, lasting all season.

So we oppose that part of the SEAS Proposal that kicks out the drift fleet.

Anita Bay is very important to the drift fleet, as it is the seine fleet.

But the early and later portions of the season especially have been tough on the seine fleet as with scratch fishing continuously benefits the guy who can make a living off a couple big fish.

The 2 seine to 1 drift should be in place from beginning to end, May through October. Statistics will show little seine harvest early and later in the season. That is because the drifters take them all. Seiners cannot fish every day and need a basic minimum buildup to harvest to pay for the overhead and costs of a 5 to 6 man crew and a vessel that costs, on average 4-5 times the cost of a gilllnetter.

If we are going to make progress on the enhancement imbalance, this is how we do it. We move days from one gear group to the other. In terminal areas.

In lieu of this, we would encourage the Board and the ADFG to dig deeply into their conscience and the state's constitutional mandate to manage for wild stock salmon populations. In other words, when the drift harvest approaches 95% enhanced salmon in an area purportedly being manged for wild stock salmon, then that area should be closed. While this would be a last resort, we believe it would have the same impact or even more on the imbalance of the allocation plan.

WE are not publicly asking for closing those mixed stock, wild stock corridors that are currently being used by drifters to harvest at least 75% of their enhanced salmon, that would be our only other alternative if we are not allowed to switch days in enhanced terminal harvest areas.

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Proposals 142 and 143- SUPPORT

We also support a 2 to 1 rotation of seine to drift at Deep Inlet. Reference comments above.

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Proposal 145 SUPPORT

Nakat has the highest likelihood of straying and is indeed an excellent example of a fleet losing traditional and historical fishing grounds.

Indeed at the time Nakat was taken away from the seiners, the rationale was that the drift fleet was in the lower end of their range and the seiners were at the higher end.

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Proposal 155 SUPPORT, WITH MODIFICATIONS

The Hawk Inlet cap of 15,000 wild sockeye is not responsive to anything but outdated numbers.

Millions upon millions of pink salmon transit this corridor and it is the only area available to the seine fleet to harvest Lynn Canal pink salmon bound for Berners, Endicott, Chilkoot, Chilkat and Taku Rivers.

8 of the 10 largest northend pink salmon returns in history have occurred since 1989, when this number was marked for Hawk Inlet. Foregone harvest of pink salmon on certain years have exceeded the value of the entire wild catch by the drift fleet of all species.

ADFG surveys and monitors pink salmon south of St James Bay in Lynn Canal. So there is no accounting for management purposes of the massive Lynn Canal drainages that produce pink salmon. Nor for the mightly Taku River, which, while non-productive on king salmon lately, is a huge historic pink salmon producer.

Two things we would ask for to modify this proposal

1. There needs to be an upward expansion and revision of the 15,000 wild sockeye.

15,000 every year is very fair. But if we only fish 2 of each 5 years and catch all 15,000, then we really only end up with 6000 a year. That was not the boards intent in 1989.

It was 15000 a year. While we wouldn'ty expect to harvest 150,000 in one year and then take 9 years off, it is criminal to be held to such a cap as in 2011 while harvesting 1 million pink salmon a day we were closed July 19 to avoid exceeding the cap.

Furthermore, we now have the best Genetic Stock ID program that occurred 2012-14, so we know what is being harvested.

In the real world, with better science and numbers, it should be a different number depending upon the strength of the Taku, Chilkat and Chilkoot systems, which comprise over 80% of the Hawk Inlet sockeye harvest.

So with a year when there are total cumulative run sizes on these rivers of 750,0000, our 15,000 would comprise less than 2%.

Hawk Inlet will always be weak stock managed. Millions of pink salmon will always get by and be wasted.

But we can stop some of the overescapement and wild stock carcass carnage on these rivers with a flexsible number rather than 15,000.

Many years we harvest zero. In 2013, the largest pink salmon year in history, we harvested just 2800.

Had we been able to harvest just 10,000 more sockeye in 2011, we'd have contributed at least 2 million pink salmon worth 7.5 million dollars wholesale to the SEAK economy.

Our Juneau managers have proven that they can and will underharvest on the 15000 number when there aren't large numbers of northbound pinks. They also need to be entrusted with a higher number when we do have large surplusses of pink salmon such as in 2011.

2. August 2 is not a reasonable sockeye cutoff date.

In the Pacific Salmon Treaty we manage for sockeye through stat week 30, which averages around July 24. August 2 is past the peak of the northend pink salmon run. It may not look that way on paper but that's because we hardly fish in July. With warmer ocean currents, pink salmon are arriving earlier and we're missing them. Sockeye salmon caught in Hawk Inlet should not count against the cap post week 30, as it has been in the Pacific Salmon Treaty since 1985.

In the Kootznawoo, Inc.-SEAS negotiation the dates chosen to open further down the Admiralty shoreline to avoid sockeye at Kanalku are July 17 below Hepburn and July 21 below Fishery Pt.

August 2 is a date that is long overdue for a change.

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Proposal 166 SUPPORT with expansion to D114

While Pt Augusta is a great index fishery, many years large numbers of pink salmon avoid the Chichagof shoreline entirely and swim up Lynn Canal or to the Taku River without ever seeing a seiner. While 112-16 is an interesting idea for an index fishery, it is likely that upper 114, nearer Adolphus, like Eagle Point, or a spot along Lemesurier Island or the Homeshore would likely result in great information as well.

If not possible to implement or if this has to occur with baby steps, fine. Let's at least have some more test fisheries in the northern corridor to assess run strength. The Icy Strait and upper Chatham corridor is a tough area to manage. In 1973, we supported temporary closure as our pink runs had been depleted to single digits.

Now with historic runs occurring and millions of pink salmon pouring through the northend on odd year cycles, more test fisheries and index fisheries would assist in managing the Juneau area.

==========

ASBO Opposes Proposals 141, 146, 154, 156, 157, 158, 167, 168, 169, 170, 173, 174, 185

==========

Most of these proposals are ill-conceived, many have seen deep snowbanks in prior form and although it is hard to take most of these seriously we will take a stab at them.

Proposal 141 OPPOSE.

While we support the drift fleets inclusion in both fisheries, a 1-1 rotation was tried in 2012 for the 2012-2014 seasons and resulted in little or no change to the Enhanced Allocation numbers. Somuchsothat USAG was given a 2-1 peak fishing time waver in an agreement covering the 2015-2017 seasons and was so unsatisfied with the results that even they are here asking to go back to 1-1.

To make a meaningful change in the Allocation numbers without unduly restricting the drift fleet from Pt Nemo, Pt Bridget or Baker, we are dealing with just terminal harvest areas. And Deep Inlet and Anita Bay are the two we share.

We tried 2 gillnet to 1 seine for nearly two decades. Then we tried 1-1. Then back to 2-1.

So now let's work within the parameters we have, without getting into the ugliness that would result if the drift fleet was made to live within the spirit of the Sustainable Wild Salmon Management Policy that southeast seiners live with.

2 days seine to 1 days drift season long.

==========

Proposal 154 OPPOSE

Besides gillnet dropout and deadloss to pink salmon, there is no fleet that intentionally kills and throws away as bycatch more pink salmon in the world except for the SE troll fleet possibly on some years.

If there were any interest in pink salmon harvest by gillnetters then there'd be more than 20 pink salmon nets out of the 400 nets in the drift fleet.

This is an old idea whose time went bump in the night decades ago.

==========

Proposal 156 VIGOROUSLY OPPOSE

Good to see USAG is at it with climate change. We agree that climate change has driven pink salmon to return up to two weeks early. So change the date from August 2 to around July 20th and we'd cover the real impact of climate change.

USAG has had conversations about this and while we know there are a couple of sockeyes around after August 2, since seiners rarely have a chance to catch any of the near 1 million annual population (including Snett and Chatham systems), we know there are a few lurking around post August 2.

But not many. This is a punitive proposal and although imaginative, does nothing to help with the reality that allowing millions of excess pink salmon to migrate through the gillnet corridors of 111 and 115 likely hinders drifters with pink salmon that now have to be disposed of and take up valuable space aboard the small vessel that is intenting to carry the more valuable chums and sockeyes.

Indeed, it is likely that the larger pink years when gillnets are sunk with pinks--- especially years when processors paid gillnetters for up to 10,000 lbs of pink salmon if they delivered none. And they were paid nothing if they delivered any.... it is in these years that an extra 2 million pinks curbed at Hawk Inlet might even cause the drifters to catch far more than 10,000 extra sockeyes due to being too busy picking and discarding pink salmon.

==========

Proposal 157&158 VIGOROUSLY OPPOSE

This is a previously well thought out agreement that had a solution that USAG is now backing out of. The drift fleet harvests well over 85% of all sockeye in northern Southeast Alaska.

Not by treaty. Not by biology. But by bullying.

A seiner catches a northern sockeye and he catches up to 100 wild pink salmon along with it.

Sometimes that ratio is 1000-1 Wild to wild.

A northen drifter catches a northern sockeye, his target specie, and he catches a minimun of 10 enhanced chums and up to 20-1 ratios. In 2017 in July in Lynn Canal -D115- htat ratio was over 1 million enhanced chum to less than 50,000 sockeye. That's 1 intended wild stock capture to 20 hatchery fish. And he probably had to kill or dump or dropout at least a few pinks just to get that 1 sockeye.

==========

Proposal 167 VIGOROUSLY OPPOSE

This is a good example as to why a proposal should at least have to get a 2nd.

Bet this guy doesn't even plan on coming to sitka.

==========

Proposal 168 VIGOROUSLY OPPOSE

Guess here's his second. So lets ban drifting 1/2 mile from the beach throughout SEAK and I'll bet we'll get thousands more sockeyes back to the rivers. That's why these guys couldn't even get their organization to support them.

==========

Proposal 169 VIGOROUSLY OPPOSE

Want to catch and keep and sell pinks on big pink years. Buy a seiner.

Dozens of gillnetters have done so already.

==========

Proposal 170 VIGOROUSLY OPPOSE

District 10 has been a historical seine area since the dawn of time.

Wanna fish there, buy a seiner. When you buy a permit, check on the area it allows you to fish.

Had the drift fleet not discarded millions upon millions of pinks over the years and if USAG can show where there have been attempts at harvesting pinks in the areas currently available, we could perhaps have taken this seriously.

This is an insulting USAG proposal.

==========

Proposals 173 and 174 OPPOSE

Our comments at the very beginning address our concerns here.

While we were supportive of these expanded quasi-enhancement percentage building fisheries in wild mixed stock corridors, we can no longer support using the Enhanced Allocation Plan of 1994 to continue to trump Alaska'a Sustainable Wild Salmon Policy and our committment to our wild stocks first.

Hatcheries are simply here to complement our wild stocks.

Southeast is still wild salmon country.

To bring in fisheries intended to augment percentages in a hatchery sharing formula and allow these fisheries to cause problems in major wild stock corridors, especially corridors where there may not be enough hook and line fish to go around, not to mention to populate our local rivers, such as Farragut, with just 200 kings, or the Taku, with 4500 expected this year.

==========

Proposal 185 OPPOSE

Another proposal that needs a second. Bad idea.

Submitted By
Rollin Young
Submitted On
12/28/2017 7:12:14 PM
Affiliation
None

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My name is Rollin Young and I have submitted three proposals dealing with the commercial herring sac roe fishery in the Juneau area, #95, 96 and 100. I support the passage of these proposals. Two of the proposals are that the fishery be closed permanently while the other one offers modification to the existing harvest level calculations. I feel the fishery should be closed and only proposed the modification of the harvest level in the event the other two proposals were not accepted. I had hoped to attend the board meeting in Sitka but other obligations came up and won't be able to.

My thoughts and reasons for these proposals are included in the proposal. That being said, I would like to stress that I am not proposing these change lightly. I realize that the herring fishermen holding permits in this fishery will be affected by the change but don't feel it will be dramatic. I feel the conservation of the herring stocks to be very important and that due to the fishery being closed for the last 35 years the economic impact on the fisherman will be less than if it were an active fishery.

In reviewing the permit holders activity in the herring fishery over the last 35 years it appears that almost 90% of the current permit holders have never fished the Juneau sac roe fishery as a permit holder. Another way of saying this is that of the current permit holders 90% have acquired that permit since the last commercial fishery in Juneau. I would hope that when they purchased their permits they took into consideration the fact of the Juneau fisheries closure and of the depleted stocks when agreeing to the purchase price for the permit.

Over the last 35 years much has changed in the herring sac roe fishery. The value of the fishery has declined dramatically and the price to the fisherman has decreased. In the late 70's early 80's roe herring was selling for over $2,000 a ton (inflation adjusted price of almost $6,000). In 2016 roe herring was selling for about $250. This has partially been caused by changes in the Japanese market and the value of the dollar to the yen. I don't believe the price of roe will ever increase to where it was in years past.

In the last few years the fishermen in the Sitka herring fishery have co-opted the fishery to reduce operation costs and increase their profit from the fishery. Too many fishermen it was not cost effective to take their boats to Sitka to fish (fuel, moorage, food...). I point this out to show that the fishery is not as valuable to the fisherman as it once was.

In the years since the last commercial herring fishery in Juneau there have been numerous changes in the area. The whale populations have increased and a very viable tourist industry has developed. There has been a large increase in the sport fishing effort, both sport and charter. Sightseeing, bird and animal watching, photograph and many other activities have developed around the herring stocks. It is my belief that the herring stocks in the Juneau area are fully utilized at this time and are more valuable to the people of Juneau as an unfished stock supporting the other fish and wildlife resources and uses in the Juneau area.

Again, thanks for your time.

Rollin Young

Submitted By
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Submitted On
12/28/2017 6:25:34 AM
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sports fisherman

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. I have fished annually on the Tsiu since the year 2000 with Alaska Wilderness. I believe the area is a precious resource for Alaska and a prime destination for sports fisherman. Over the years I have experienced unpleasant times when netters are in the area creating some danger for shore fisherman. Current regulations separating commercial from sports fisherman should be maintained.

I have experienced amazing fishing which keeps me coming back.

In regard to netting. Netting/herding should not be allowed in areas where the river is narrow and there is narrow channel with a deep drop off effectively blocking the river to migrating fish. The recent natural shortening of the river channel there can only create more conflict between fishermen and netters, netting should not be expanded.

Thank you for your interest in protecting this resource.

Submitted By
Russell Thomas
Submitted On
12/28/2017 4:57:54 PM
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Experience Alaska Tours

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My name is Russell Thomas and I am the general manager for Experience Alaska Tours. I am writing in regards to proposal 60, which is attempting to establish a super exclusive crab fishery mirrored off the George Inlet Super Exclusive Sport Crab Fishery that our company participates in down in Ketchikan.

I was not with the company when the Super Exclusive Fishery first came in front of the board, but I have been involved in a couple of changes to the regulations since then. In my opinion, the restrictions placed on us under this fishery are onerous, particularly in regards to how the regulations treat our crew. We were successful in implementing some changes that allowed us to de-register our crew and added provisions that allowed the company to replace a captain or crew member mid-season, but current restrictions still prohibit our crew members from commercial crabbing, taking another charter, and restricts the manner in which we can use the vessels assigned to the Super Exclusive Fishery.

I am not opposed to this type of opportunity being opened to other businesses in other places. We have been able to generate substantial economic benefits in the Ketchikan area with this tour, plus purchase tens of thousands of pounds of locally caught commercial crab each year to serve to our customers. The fact that pulling the crab pots, releasing most fo the catch, and allowing our guests to handle a crab on each tour appears to have no noticeable effect on the resource after 14 years of operating our tour is proof positive that tours like ours can be eco-friendly, sustainable, and economically viable.

My concern is that Proposal 60 looks to implement the same type of fishery that is operated in George Inlet but without any of the conditions placed on the fishery, the crew, or the equipment that are currently in place in George Inlet. The George Inlet Super Exclusive fishery was brand new and the Board wisely put into place many restrictions as a way to gauge how it would work, what effect it would have in the stock, and to determine its viability. If the Board now determines those restrictions are no longer necessary, they should be relaxed and eliminated for the George Inlet Fishery along with the new Super Exclusive Fishery in Sitka. However, if the Board determines that those decisions were wise and some of the reasons for their implementation are still valid, those same restrictions that are applied to the George Inlet Super Exclusive Fishery should also be applied to the fishery in Sitka.

I appreciate your consideration in this matter.

Regards,

Russell Thomas

Submitted By
Russell Thomas
Submitted On
12/28/2017 4:43:14 PM
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My name is Russell Thomas and I am general manager of Alaska Sportfishing Expeditions, a group of three family-operated fishing lodges in Ketchikan. I am writing regarding the Unik River Chinook Action Plan that is before the Board this cycle.

I am asking the Board to consider Action #1 - Sport Fishery, Option A, Status Quo. My reasoning is the Department's report stating that EO management measures implemented in the sport fishery since 2015 have effectively eliminated the sport catch of Unik River Chinook. I realize it is statistically improbable to assume that sport fishermen did not harvest a single Unik River Chinook salmon in 2017. However, no Unik River coded-wire tags were recovered in the fishery, when historically speakring, an average of 4 tags had been recovered prior to EO management action being implemented.

As I advocate for status quo, I am hesitant to do so because I know it will appear that I am advocating for cuts to all fisheries except those that affect our customers. If the data is inaccurate and the Board determines that recent cuts have not all but eliminated the sport take of Unik River Chinook, I would support further action to the sport fishery to ensure the stock is protected. However, if in fact we have all but eliminated sport harvest of Unik River Chinook through EO management action taken in 2015, 2016, & 2017, futher cuts to the sport fishery in Behm Canal will not help the Unik stock and will deprive fishermen of opportunities to cut other stocks harvested in the fishery.

As for other action to help Unik River Chinook relating to other gear groups, I would ask the Board to use the same measuring stick. If measures currently in place are meeting conservation objectives, then the status quo should suffice. If they are not, then additional cuts should be made in those fisheries (as has previously been done in the sport and commercial fisheries) to address those concerns. Exploitation rates in the sport fishery on the Unik River Chinook stock seems to have been fairly stable over the last 10 years. In contrast, the net and troll exploitation rate has significantly increased. It would stand to reason that the department would look at the causes of those increases in exploitation and ensure the action plan takes steps to mitigate those increases. In the end, it is a shared resource and all user groups need to be responsible for ensuring the stock gets the best chance possible to recover.

I appreciate your consideration and look forward to working with the Board and Department as we continue toward the goal of sustaining the SE Chinook resource.

Regards,

Russell Thomas

Alaska Department of Fish and Game
Board of Fisheries Support Section
Glenn Height, Executive Director

RE: Miscellaneous Business Sitka Open Pound Information Documents

December 27, 2017

Thank you for continuing the discussion of Open Pound Herring Roe on Kelp being used as an alternative harvest method for existing Sitka Sound seine permit holders. Most of you should know the history of this concept and the unique situation this proposal finds itself in today. The following information was submitted for the last Board cycle (then known as Proposal 126) for the benefit of new Board members and as a refresher for those already familiar with the concept.

Unfortunately this concept is not on your agenda as a proposal due to the Department of Law determination that the Board is not able to make a decision on it until action by Commercial Fisheries Entry Commission (CFEC). CFEC, and their legal counsel, have stated the Board should act on the proposal first. CFEC will not take up this issue again without a clear showing that this concept and proposal is something the Board would actually approve. This puts things in a difficult spot. As stated and submitted to the Board in past documents, according to ours and others understanding of the statutes involved the Board should be able to decide on methods and means in a fishery and then CFEC would decide if the decision violated the purpose of the Limited Entry Act.

This concept and proposal, as you should see or have seen, presents a way to increase the value of the Sitka herring resource and reduce the amount of herring being extracted. This concept and proposal is, for all practical purposes, how resources should be managed: Acquiring more value with less harm to the resource. Unfortunately, again the Board does not have the ability to vote on it. The only option apparently is for the Board to craft another letter to CFEC to, once again, ask them to adjust the administrative area lines so the Board can make a formal vote on the proposal. It seems we are going around in a circle as this request has already been made and CFEC chose no action. This proposal was not supposed to be decided by CFEC. This proposal was supposed to be decided by the Board. If later we find it violates the Limited Entry Act then so be it but at least the process would have gotten to that point rather than having a great idea swept aside as a result of a difference of legal opinion over State statutes. The Board should be allowed to vote on this proposal.

Open pound spawn on kelp (SOK) in Sitka Sound was first proposed to the Board in 1996. In 1998 and 1999 an experimental SOK fishery was conducted in Sitka Sound. Two decades have passed since the experimental fishery but the data, studies, and reports produced are still relevant. The market for herring roe products has not changed much from the time these documents were produced. A finite market for existing herring roe products still remains but expansion is possible with the addition of the thinner product that would be produced with SOK. Currently, issues regarding resource conservation and subsistence needs have come to the forefront and the economies of the fishery have been in decline. Diversifying the fishery with SOK as an alternative harvest method would address many of the concerns surrounding the fishery while improving the overall value of the fishery.

This PC contains the following documents:

- Spawn on Kelp and the Sitka Sound Herring Fishery.
- ADFG Report to the Board re: 1998-99 Experimental spawn on kelp fishery in Sitka Sound.
- Assessment of Macrocystis Biomass, Quality, and Harvesting Effects in Relation to Herring Roe on Kelp Fisheries in Alaska.
- Open Pounds and the Traditional Subsistence Fishery.
- An Update of Market Variables Affecting Demand in Japan.
- ROK Marketing Questions and Answers.
- Letter from Elderwood Trading regarding SOK in Sitka Sound.

The markets for Sitka Sound SOK are not the markets for thick SOK, but for a thinner product at a lower price point with a perceived value which can be more easily consumed in the marketplace. The existing market for SOK is hampered by large fluctuations in volume which have limited market expansion. SOK production in Sitka Sound would ease fluctuations in overall supply giving distributors the opportunity to expand the market, generate more awareness of the product, and increase demand for the product. Increased demand leads to higher prices. This will not happen overnight but it is time for a departure from status quo. SOK in Sitka Sound is a step in the right direction.

Respectfully Submitted,

Ryan Kapp

Spawn On Kelp and the Sitka Sound Herring Fishery

Allowing an Open Pound Spawn on Kelp (SOK) fishery in Sitka Sound will increase the overall value of the fishery while killing less fish than the existing harvest method.

The biology of spawning herring is a big factor in producing more value from the same biomass.

Currently, herring harvest can begin when roe recovery is sampled at 10% roe weight. Put simply: 100 tons of fish equals 10 tons of eggs. In some Sitka Sound openings roe recovery has been as high as 13%. In an experimental SOK fishery conducted in Sitka Sound in 1998 and 1999, Alaska Department of Fish and Game determined that 100 tons of herring biomass harvested with SOK converts into 27 tons of product. This represents a recovery of 27% which more than doubles the existing fishery recovery.

The reason for this increase in weight is biological. Upon fertilization the herring egg hydrates with water increasing the weight of the egg. SOK eggs are spawned, fertilized eggs that are hydrated while seine caught sac roe are pre spawn eggs and not hydrated. Because of this hydration the weight of an individual egg produced with SOK is more than twice as heavy as an individual sac roe egg.

With SOK the value of the eggs is increased as well. For example: 100 tons of herring at current prices (optimistically figure $200 per ton) is worth $20,000. That same 100 tons of herring harvested with SOK equates to 27 tons of product or, for simple math, a little over 50,000lbs. 50,000lbs of product sold at current prices (realistically figure $5 per pound) is worth $250,000. In this scenario the SOK product is worth more than 12 times the value of the traditional sac roe product.

While harvesting with SOK increases the value of the fishery product the best part is with Open Pound SOK no herring are killed. An Open Pound SOK fishery means the herring can swim into and out of the kelp as they please. There are no nets used at any time. The fish swim in, spawn, and return to sea making them available to spawn again in the future.

Increasing the value of the resource while causing the resource less harm is a win / win scenario. Incorporating Open Pound SOK into the Sitka Herring fishery would be a benefit both now and well into the future.

Sitka Sound Herring Spawn on Kelp

Open Harvest Platform

Experimental Fishery Report

Spring 1998

Submitted to

Alaska Department of Fish and Game

Commercial Fisheries Division

ADF&G Contract No. 11-122-98

Submitted by

Paul Gronholdt and Associates

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Prepared by

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EXECUTIVE SUMMARY

In response to a call for change in the Sitka Sound herring fishery, the Board of Fisheries prompted the Alaska Department of Fish and Game to conduct an experimental fishery using the Open Harvest Platform roe on kelp gear alternative. The goals of exploring diversification of the fishery were to improve conservation and encourage greater economic yield to participants.

Paul Gronholdt and Associates carried out the Experimental Fishery in accordance with contract specifications outlined by the Alaska Department of Fish and Game. The team's experience, good weather and an excellent herring return contributed to PGA's attainment of the goals of the experimental fishery.

The PGA team worked in concert with ADF&G research staff to support sampling efforts and generally track the fishery. PGA maintained communications with ADF&G staff from March 15 through the consummation of final product sales in Japan in the late summer.

This report provides a narrative describing procedures and schedules involved in the execution of the experimental fishery. Additional documentation on the harvest details is provided as attachments to this report.

MACROCYSTIS KELP HARVEST

About five tons of *Macrocystis* fronds were harvested from a single kelp bed along the north shore of Heceta Island, Sea Otter Sound. ADF&G reports that this included an estimated 4,080 fronds, each bearing an average of 16 blades. Thus, an estimated 65,280 total blades were "fished" as spawning substrate.

OPEN HARVEST PLATFORM FISHING

About 47 fishermen, consultants and processing crew were directly involved in the fishery. Four platforms were fished in Sitka Sound for two to four days each. Excellent spawn coverage was achieved. They carried out kelp gathering, rack loading, fishing and harvesting from March 16 through the 25th. Processing continued for an additional 2-1/2 weeks.

HERRING UTILIZATION

An estimated 104 tons of herring provided spawn for the final product harvested in the experimental fishery. 6,900 tons of herring were taken in the traditional sac roe fishery.

PROCESSING AND MARKETING

The total yield of this effort was 57,038 pounds of "Kazunoko kombu", which sold for 261,538 USD. 74% of the product was graded as #1 or #2, and the average price was $5.46 per pound. Grade 5 fetched $0.45 per pound, and Grade 1 paid $7.58 per pound.

Fine silt found in the spawn layers made processing very difficult. Half of the product required light-table examination and special cleaning. Quality was impacted considerably, and the final price paid for the product reflected this problem. Experts feel that Sitka Sound resources and the level of local fishery sophistication can be focused to meet the stringent standards of an emerging Japanese market in the coming years.

SUBSISTENCE INTERACTIONS

PGA coordinated fishery logistics through their Sitka Tribe subsistence liaison, Mike Miller. The Sitka Tribe's attorney, Tribal biologist, Miller and other tribal leaders indicated that none of the conflicts that Tribal members had anticipated transpired during the experimental fishery.

ENVIRONMENTAL AND CONSERVATION MERITS

The environmental and conservation merits of this fishery were demonstrated in 1998. The fishery appeared to leave minimal impact to the kelp bed or Sitka Sound ecosystem. PGA's observations indicate that neither the kelp nor herring involved in the fishery were killed. This sublethal harvesting method has clear conservation benefits for both of these resources.

ECONOMIC BENEFITS TO SITKA

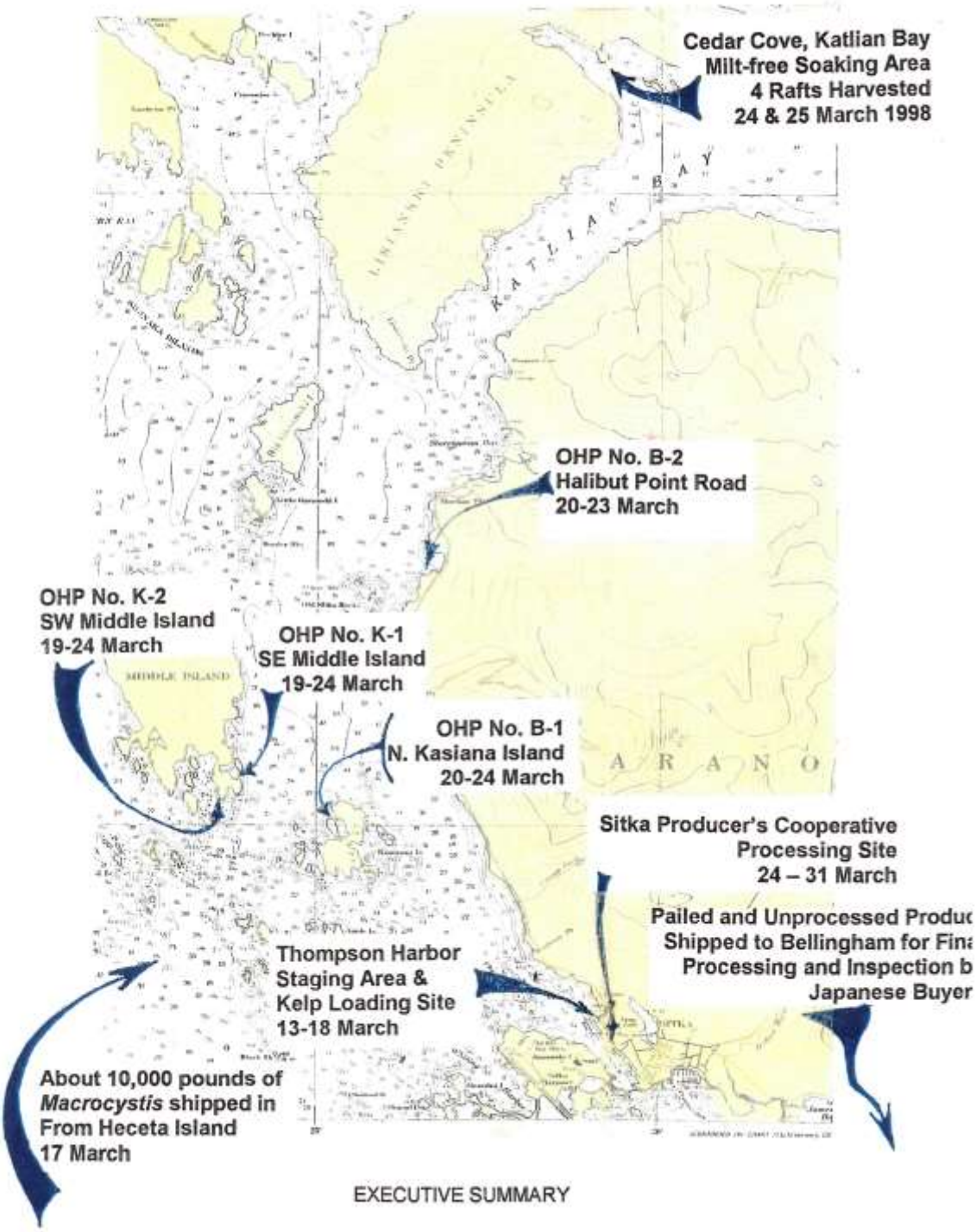
The Sitka community derived economic benefits from the fishery through short-term jobs and the direct purchases of goods and services. Raw fish taxes and city sales tax paid on local goods also contributed to the community's springtime economy.

WHAT'S NEXT?

The collective benefits of the open harvest platform method were largely realized in the 1998 experimental fishery. Fishery resource conservation merits were demonstrated, subsistence and other fisheries proceeded without disruption, and the roe on kelp produced was of acceptable quality. The funds generated in the fishery covered ADF&G management costs and offset most of PGA's expenditures.

Paul Gronholdt and Associates is satisfied with the overall outcome of the fishery. The PGA team feels that lessons learned in 1998 can contribute to a strategy of refining production standards for Sitka Sound roe on kelp which will lead to greater market niche security in the future.

Sitka Sound Herring Roe on Kelp Experimental Fishery
Open Harvest Platform Method
Paul Gronholdt and Associates March 1998



EXECUTIVE SUMMARY

Sitka Sound Herring Spawn on Kelp
Open Harvest Platform Method
Report on Experimental Fishery Results
1998 Season

Contents

Section 1. Introduction and Background

This report describes the methods used by Paul Gronholdt and Associates in conducting the Sitka Sound Herring Spawn on Kelp Experimental Fishery. The results of the 1998 fishery and some of the challenges encountered in adapting the Open Harvest Platform fishery technique and marketing strategy to Sitka Sound are discussed.

Background

The Sitka Sound herring fishery has allowed only sac roe seine gear since entry to the fishery was limited in about 1977. Along the West Coast of North America, this singular gear type management regime for herring harvest is unique to Sitka (Garza 1996). In accordance with the Limited Entry Act optimum number provision, the CFEC established the maximum number of participants in the Sitka sac roe fishery at about 50 permits.

1.1 Diversification of the Herring Fishery

In early 1998, about one third of the Sitka Sound sac roe seine permit holders organized an effort to support the development of a spawn on kelp alternative to the Sitka Sound sac roe herring fishery. Under the leadership of a native of Sand Point, Paul Gronholdt and Associates submitted BOF Proposal No. 441. The proposal sought to "Allow Sitka Sound herring sac roe purse seine permit holders the option of using open pound racks to harvest herring roe in the form of kelp in lieu of or in addition to using purse seines."

Purse seine permit holders in the group, contracted biologists and consultants went before the Board of Fisheries in support of proposal No. 441 in Sitka (January 1998).

The Board of Fisheries took no action on proposal 441, but acknowledged the potential conservation and economic benefits of the gear type. In order to explore several aspects of the proposed open harvest platform method, the Board requested that the Alaska Department of Fish and Game conduct an experimental fishery. ADF&G responded by designing an experimental fishery and soliciting bids for the 1998 season.

1.2 Experimental Fishery Terms

Terms established by the Department for conducting the experimental fishery required that the contractor deposit a $64,000 bond with the department, have at least two years experience in the spawn on kelp fishery, and have an appropriate vessel, platforms and other equipment necessary for achieving the test fishery goals. To further ensure a successful outcome, the Department also required that the contractors provide a harvest, marketing and processing plan, and hold a letter of agreement with a licensed Alaskan seafood processor for handling the roe on kelp product.

The goals of the test fishery were to first produce a sufficient quantity and quality of roe on kelp from four rafts to generate $336,000 in product sales to pay department and contractor's expenses. The project would serve as an opportunity for ADF&G to conduct resource research on both kelp and herring, as well as observe the fishery for environmental impacts, gear conflicts and subsistence interactions.

Sitka Sound Herring Spawn on Kelp Experimental Fishery Report
Paul Gronholdt and Associates March 1998

Paul Gronholdt and Associates were awarded the test fishery contract on February 25, 1998. Comprised of 13 Sitka Sound herring sac roe permit holders, about 40 crewmembers, and five consultants, the "PGA team" commenced with mobilizing their vessels and open harvest platforms for the fishery in early March.

Section 2.0 Results of the 1998 Experimental Fishery

From early March through mid-July, Paul Gronholdt and Associates carried out the experimental fishery, processing and marketing of roe on kelp as described in their contract with the Alaska Department of Fish and Game. The results of this coordinated effort were beneficial economically as well as informative to community members, the experimental fishing team and the ADF&G research and management staff.

The PGA team successfully transferred California OHP fishing technology to Sitka Sound, and adapted the method to Alaskan conditions. Sitka residents were able to observe the entire process and learn directly the logistics involved and impacts resulting from the alternative gear system. ADF&G researchers implemented their research plan with few changes, and obtained data upon which to base their analysis of the fishery.

Finally, the overall quantity and quality of the roe on kelp yielded by this fishery were very good, considering it was a first attempt at the fishery in Alaska. Sales of the product were sufficient to reimburse most of the PGA team's costs, and covered the entire ADF&G experimental fishery research budget.

Detailed records of activities involved in the experimental fishery are noted in the chronology in attachment D. The following section highlights the manner in which each facet of the fishery was conducted, notes any discrepancies from the original plan, and briefly explains the results of each phase of the operation.

2.1 Staging for the Test Fishery

The PGA team began staging for the test fishery in early March. Robert Glenovitch shipped his custom-manufactured aluminum roe on kelp rafts and other equipment from Bellingham to Sitka on the F/V Alicia Jo. Crew from the St. Zita assembled the rafts and moored them in New Thompson Harbor on March 13.

About 60 fish totes were stored on a barge leased from Excalibur Drilling. Located inside the Thompson breakwater, the barge served as a useful platform for the kelp stringing and open harvest platform loading operation.

2.2 *Macrocystis* Kelp harvest

High quality *Macrocystis* kelp is essential for the production of excellent herring roe on kelp. Desirable kelp blades are at least 6 inches wide and 20 inches long, with smooth margins, no holes and free of encrusting growth.

Although *Macrocystis* grows from Dixon Entrance to Icy Strait, mature blades meeting these harvest criteria in the early spring are not abundant throughout the plant's Alaskan range. On March 13 and 14, Darrell Kapp and crew inspected *Macrocystis* kelp beds around Baranof Island. No kelp of sufficient blade size and abundance could be located near Sitka Sound.

Kapp conferred with Bill Davidson about the situation and coordinated a team of kelp harvesters to travel further south. On March 15, Jim Beaton directed his crew on the F/V Starrigavan to depart Sitka for Sea Otter Sound. Kelp quality expert Warren Westrom

screened several kelp beds and located a supply of mature *Macrocystis* about 120 miles south of Sitka. Beaton notified ADF&G of the harvesting site and schedule.

On March 16, PGA's biologist and two ADF&G technicians flew to the North end of Heceta Island where they rendezvoused with the Starrigavan crew. Two fishermen that live on Heceta Island were contracted to gather kelp for the fishery, and joined the team onsite.

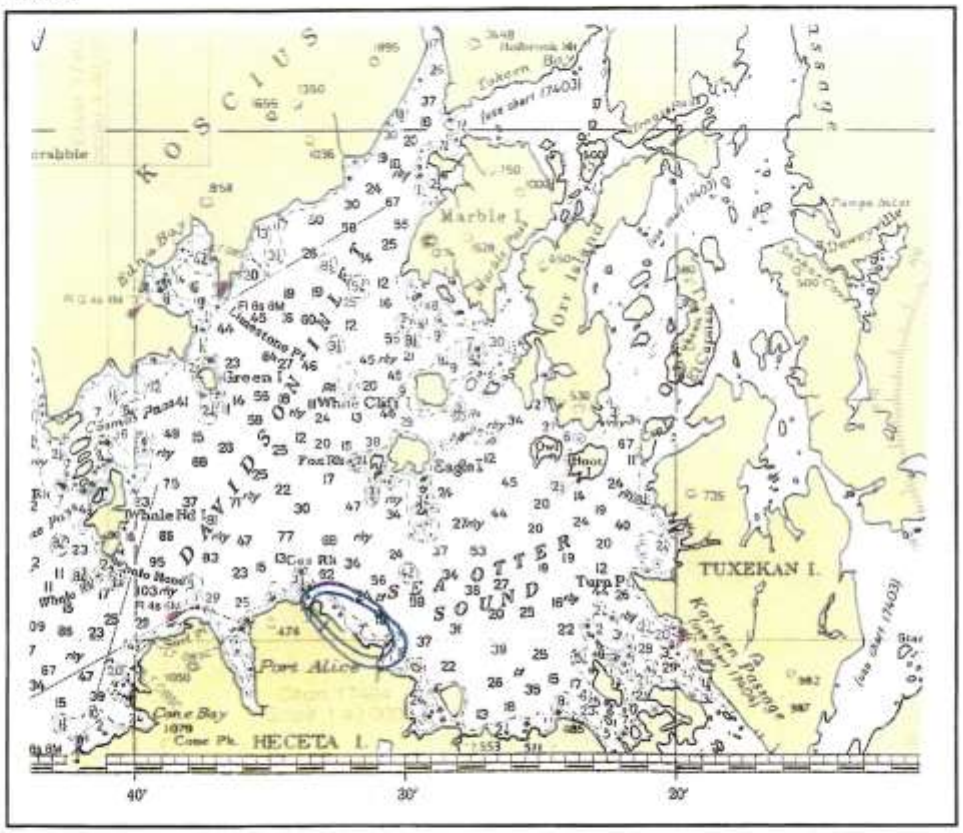


Figure 2.1 Nautical chart indicating the location of the North Heceta Island kelp bed. Nine people harvested about 4,000 *Macrocystis* fronds from this site in about 10 hours.

The following individuals participated in the kelp harvest at North Heceta Island:

- Johnny Weyhmiller and crew
- Rob Miller, Sitka
- Charley Frisbee, Hydaburg
- Lee Morris, Captain F/V Starrigavan
- Steve Frago, Crew, F/V Starrigavan
- Becca Johnston, Crew, Starrigavan
- Michelle Ridgway, PGA Biologist
- Warren Westrom, Kelp Quality Advisor

(Nicole DuClose & Eric Parker, ADF&G)

The kelp team commenced with the *Macrocystis* harvest on the morning of March 16, and completed the task by 1900 hours that evening. All kelp used in the test fishery was harvested from one bed located at North shore of Heceta Island, about two miles SE from Gas Rock, at 55 °49.43 North 133° 31.145 West (Figure 2.1). This site lies within ADF&G statistical area 103-90.

In accordance with contract stipulations Warren Westrom directed the kelp team to weigh and inventory each tote of kelp and maintain the kelp harvest logbook. Pursuant to ADF&G kelp harvesting regulations 5 AAC 37.300, the crew harvested *Macrocystis* from small skiffs by hand, removing only the upper portion of the fronds.

Westrom oversaw that kelp harvested met quality control standards. Frond sections taken were about six to eight feet long. The four to five newly formed blades at the tip of each frond are unusable and were trimmed off to reduce mucilage buildup in the totes.

Photograph 2.1 *Macrocystis* kelp harvesting in Sea Otter Sound, North shore of Heceta Island. Kelp blades are in good condition, but slightly smaller than preferred. PGA's biologist, Michelle Ridgway was monitoring the harvest and observing for impacts to the kelp resource and effects on marine mammals and birds in the area. 16 March 1998

A total of 10,236 pounds of kelp was harvested and transported in 40 standard fish totes. The ADF&G research team estimated that this consisted of 4,080 fronds with an average of 16 blades per frond, or 65,280 total blades.

The Starrigavan crew lashed the totes of *Macrocystis* to the deck, and kept them lidded during transport. Weather was rough through Chatham Straits, but the kelp arrived at Thompson Harbor in excellent condition.

Kelp Harvest Impacts

The ecological effects of the kelp harvest were difficult to gauge. As there was no provision made for conducting a quantitative study of the kelp prior to harvest, both ADF&G field technicians and PGA's biologist made general observations of the harvest.

Ridgway photographed the kelp bed prior to and following harvest. Neither observations made on the day of harvest nor the photographs reveal that the bed had been diminished in any way. ADF&G biologists revisited the kelp harvest site on April 9, and reported that "there was no obvious impact on the kelp bed". Ridgway revisited the site in July and September. Based upon surface observations only, she did not see obvious signs of deterioration in individual plants or in the bed.

Even when harvesting fronds in the kelp bed, it was difficult to detect any reduction in the kelp biomass. However, it was obvious to all pickers when high quality blades became scarce in an area. Upon completing the harvest, we felt that we had taken most of the higher quality fronds from the kelp bed – which is about 1/3 square mile in size.

We assume that impacts to the kelp bed from this harvesting included some damage to the individual plants which were "pruned". Because only one or two fronds were taken from each plant, the *Macrocystis* plants will likely recover the lost biomass by summer's end.

Ridgway observed seals, cormorants, marbled murrelets, gulls and numerous seaducks in the bay during harvest activities. Three seals remained in the kelp while skiffs collected fronds, it did not appear as if they were disturbed at all. Other than the likely short-term disruption to the fish and invertebrate populations dwelling under the kelp canopy, it does not seem as if this year's level of harvest resulted in long-term damage to the kelp bed or the ecosystem it supports.

Kelp User Conflicts

Potential conflicts between the Spawn on Kelp Experimental Fishery and subsistence harvests of kelp or SOK on the West Coast of Prince of Wales Island was cited as a concern prior to the fishery (Comments to the Board of Fisheries by Dolly Garza, 1998).

The PGA team harvested kelp for the experimental fishery only at the Heceta Island site, many miles away from the traditional kelp harvest areas used by the communities of Craig, Klawock Sitka and Hydaburg (see figure I in the Executive Summary). There were no concerns or conflicts reported as a result of the kelp harvest.

2.3 Open platform fishing

The Starrigavan crew arrived with the *Macrocystis* in the evening on 17 March. The PGA core team of seine boat skippers and advisors met to review the kelp loading procedure and by 2100 hours mobilized their crews to begin work. The ADF&G staff were notified of project activities and were on site as the kelping procedure began.

Four seine boats anchored rail to rail in Thompson Harbor, near the Excalibur barge. In windy, cold weather, 37 crew members, boat captains and four contractors engaged in stringing and loading kelp on racks for 6 1/2 hours, completing the task at about 3 a.m.

The kelp loading procedure involved the following steps:

- *Macrocystis* fronds were removed from totes and trimmed to 6-foot lengths
- A seine lead weight was attached to the bottom end of the frond, and a length of gangion line to the top end of the frond. The gangion was made off to a piece of groundline. Fronds were spaced about 1.5 meters apart along the kelp line.
- Lines bearing fronds were "coiled" into totes, much like baited longline gear
- The Merlin crew took fully loaded totes to the open harvest platforms, and "shot" the lines into place. From 37 to 43 lines were placed on each of four platforms, each line bearing about 28 fronds.
- Kelped platforms were then allowed to settle for about a day in Thompson Harbor

Photograph 2.2 Loading kelp; late night in Thompson harbor. Two assembly lines involving about three dozen-crew members prepared kelp fronds for suspension in the open harvest platforms. Weights and gangions were attached to each frond, and then fronds were attached to kelp lines on the four platforms. 3,858 fronds were fished in the experimental fishery.

On March 19, vessels in the PGA fleet slowly towed two loaded kelp racks to fishing sites designated by Darrell Kapp with input from Subsistence Coordinator, Mike Miller. Details of the logistics involved in handling each rack during the fishery are provided in the Chronology (Attachment D), and in the interim report (Attachment E).

Rack K-1 was anchored in a small cove on the SE end of Middle Island, and K-2 was secured in a nameless cove on the SW end of Middle Island in the evening of 19 March (Figure 2.2). On 20 March, racks B-1 and B-2 were towed to anchorages on the north end of Kasiana Island and to North Magic Island. Later on the 21st, raft B-2 was tied to a private dock located on Halibut Point Road, where it remained for the rest of the fishery.

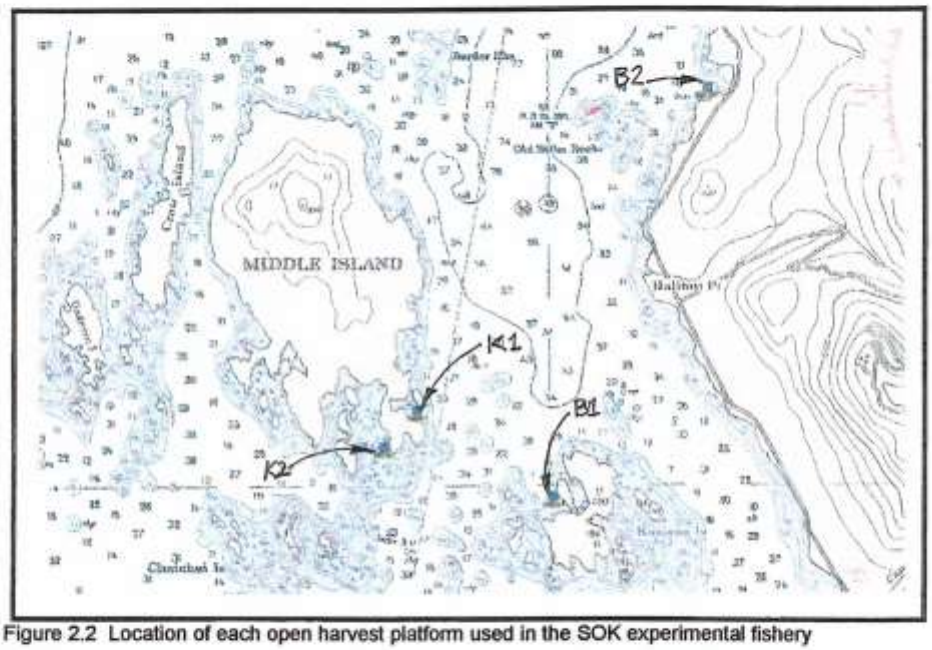


Figure 2.2 Location of each open harvest platform used in the SOK experimental fishery

All rafts were adorned with two to four blinking warning lights and signs displaying ADF&G permit numbers. Each raft was positioned near a steep beach, and tied to shore with one or two stout shorelines. The corners of each raft most distant from the beach were secured using 50-pound longline style anchors.

Spawn Deposition

1998 was an excellent spawning season in Sitka Sound. ADF&G reports that spawning in the Sound occurred from March 19 through April 12, with major spawning from March 21-25. Spawning events began earlier than usual, and over 65 miles of shoreline was spawned upon.

We observed spawning at every raft by the 21st of March. Schools of male and female herring milled around the rafts and, seemingly responding to the same cue, females

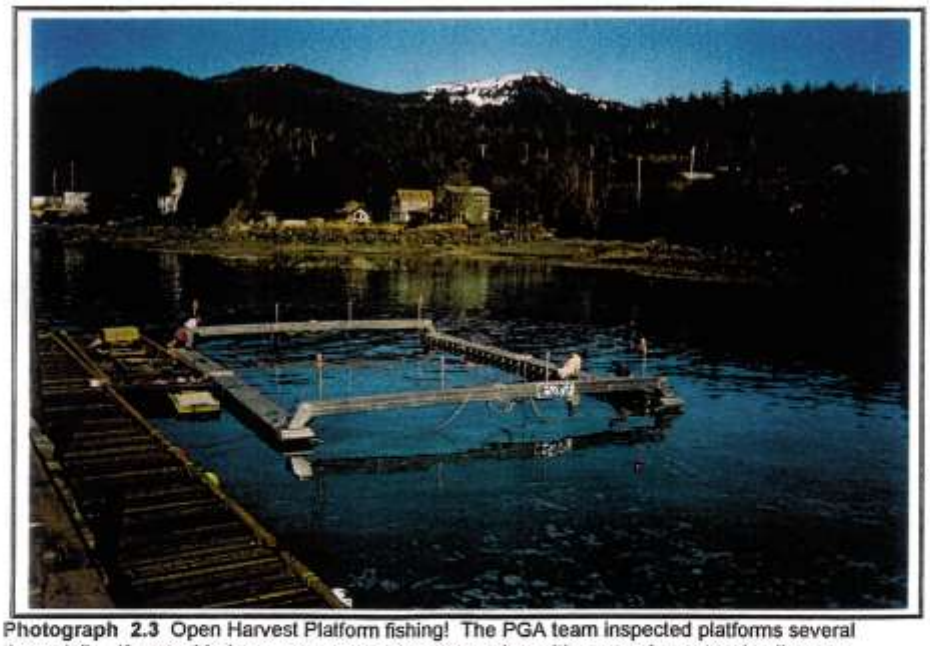
began to deposit eggs on the kelp blades. Like a seamstress sewing stitches, each female laid her eggs on blades in rows. Males released milt in the rack areas on an intermittent basis. On March 23rd, the PGA team and ADF&G managers observed that most of Sitka Sound was a sea of milt.

While the gear was fishing, two dozen members of the PGA team shared the task of monitoring rafts for spawn deposition, observed and responded to subsistence fishing activities in the area, and generally guarded the platforms (see Chronology). Each raft was tended each night they were in place. The crew monitored spawn deposition at each site, and eventually lowered most kelp lines to improve blade exposure to spawning herring.

During the fishing period, representatives of the Alaska Department of Fish and Game, USFWS Protection, members and staff from the Sitka Tribe, and members of the general public from Sitka visited the roe on kelp rafts.

By March 23, all racks had from one to four egg layers deposited on most blades. At about 8 o'clock p.m, the Ryan D. Kapp towed platform number B-2 from the Halibut Point Road site about five miles to Cedar Cove in Katlian Bay. The raft was tended overnight while the product soaked to cleanse away excess milt.

On the 24th, the remaining three rafts were towed to Cedar Cove for soaking. Weather was calm, and product loss from the rafts during the tow was negligible. Seine boats towed the rafts at a speed of about 2 knots.



Photograph 2.3 Open Harvest Platform fishing! The PGA team inspected platforms several times daily. If upper blades were not receiving spawn deposition, gangion extension lines, or "drops" were used to lower the kelp lines in the water column.

Photograph 2.4 The condition of *Macrocystis* blades was closely monitored. Cool temperatures, high saline water and early spawning in Sitka contributed to the preservation of kelp quality.

2.4 Roe on Kelp Product Harvesting

Five seine boats and their captains and crew gathered in Cedar Cove for harvest of the first rack on the morning of the 24th of March. We first worked with the ADF&G research team to tag randomly designated fronds for sampling and set up ADF&G's sampling station. About 30 people engaged in harvesting and packing roe on kelp for about three hours.

The team removed each frond from kelp lines, then snapped all blades off of the stipe or stem, stacked blades carefully and then packed them into standard-sized fish totes. ADF&G collected every marked frond for sampling and maintained counts of all fronds harvested. Totes full of roe on kelp blades were loaded on to the deck of a seiner, and taken to the Sitka Sound Producer's Cooperative for processing.

The crew harvested the three other racks in this manner on March 25th[th]. Weather was cold, windy, and sleeting occasionally. The harvest proceeded without incident of note. About 50 totes of roe on kelp were delivered to the SPC plant by evening of the 26[th].

Photograph 2.5 Paul Gronholdt's F/V St. Francis positioning a kelp platform in Cedar Cove following a two-hour tow from the fishing grounds. The roe on kelp was allowed to soak in the milt-free waters for 12 to 24 hours prior to harvest to reduce product adhesion.

Photograph 2.6 Product harvesting begins. Teams of kelp handlers worked from the decks of two seiners moored to the platform. ADF&G researchers have set up a sampling station on the aft deck of the Robert Glenovitch's St. Zita.

Photograph 2.7 Kelp "clotheslines" were hauled in and fronds removed gently to avoid breakage. Two to four herring egg layers were deposited smoothly on most blades.

Photograph 2.8 Deck crews removed weights and gangion lines from each frond, then snapped blades from the attachment point to the stipe, leaving the pneumatocyst attached to the stipe.

Photograph 2.9 Herring Roe on Kelp Harvest: Blades were gently placed into fish totes for transit to Sitka Producers Cooperative, about two hours away.

Photograph 2.10 Herring Roe on Kelp Harvest: Ungraded *Macrocystis* blades were stacked carefully to prevent egg loss during packing.

2.5 Roe on Kelp Processing

Sitka Producer's Cooperative

Seine boats in the PGA fleet delivered about 50 totes of fresh *Macrocystis* blades laden with herring roe to the Sitka Producer's Cooperative on the 24th and 25th of March. 12,332 pounds of product were landed on 24 March, and 42,135 pounds were landed on the 25 March, for a total of 54,467 pounds of "raw" roe on kelp. Kanaway Seafoods Fleet Manager, Sandy Souter monitored the landings, recording weights of individual totes by raft. Per contract arrangements, landings were made on an ADF&G experimental fishery gear card (Attachment F).

An SPC crew of 8 to 14 people worked under the direction of Kanaway Seafoods SOK Operations Manager, Richard Walsh. This crew worked for about 7 days at the Sitka Plant. Crew size varied because some workers tended to intermittent deliveries of longline-caught fish to SPC. Processing at SPC would have continued an additional week or so, but specialized processing at an outside plant became necessary.

As described in PGA's Processing Plan, the crew proceeded to introduce a 100% brine solution into each tote following delivery. After initial brining, heavy depressors and lids were placed on the product, and totes were rotated until each attained the desired level of brine saturation. Absorption of salts from the brine is dependent upon kelp thickness and egg deposition consistency, and is therefore variable. Over the course of about 24 hours, totes were treated with two to four brining sessions.

Brined blades were trimmed, graded, drained in baskets and then weighed. Blade pieces were placed in pails by grade, and topped with a scoop of fine salt (Photographs 2.11 – 2.15). The target net packing weight was 34 pounds of product per pail. The crew filled each pail with brine and shook loose any air bubbles, then they sealed the pails with airtight lids for storage.

The product was held at about 20° Fahrenheit during all phases of storage, domestic shipping and transport overseas. The high salt content of the product precludes damage from freezing at this temperature.

Silt Setback

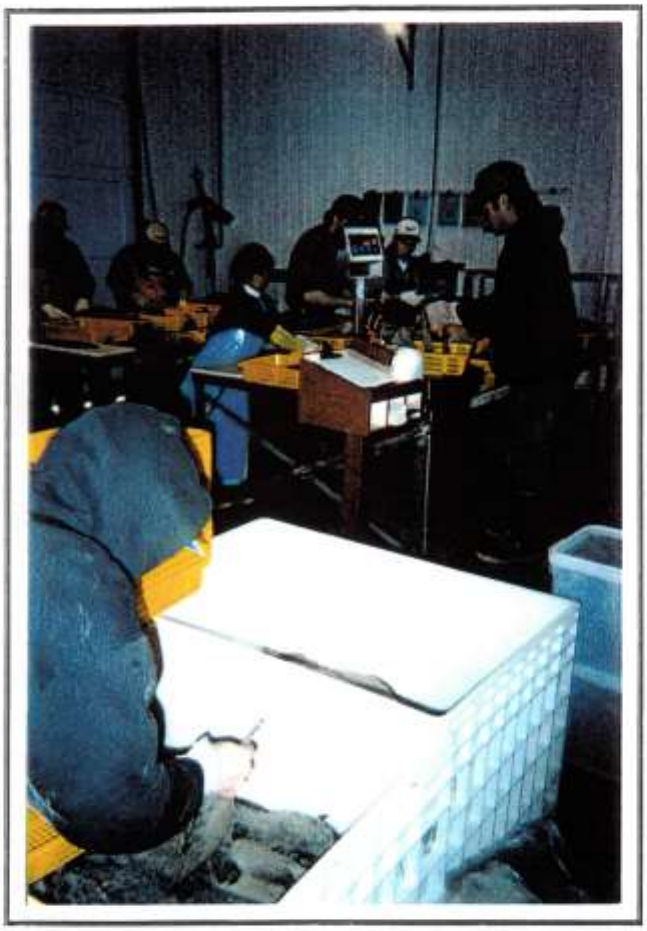
During the course of processing, the Kanaway team discovered signs of silt in the product. They inspected further and found that two rafts had been contaminated with very fine layers of silt either on the kelp or mixed in with the egg layers.

Silt contamination is unacceptable in the marketplace. Since SPC did not have the proper equipment for inspecting and cleaning silt from the product, the crew sealed brined totes from two silty rafts and shipped them south.

The crew palletized the processed pails and loaded them with brined totes into containers for shipment to Bellingham. Alaska OutportTransportation Association and Northland Services, Inc. transported totes of unprocessed product and pails of processed product from Sitka to Home Port Seafoods plant in Bellingham on April 11, April 20 and May 7.

Kanaway Seafoods, Inc. Bellingham, Washington

Eight to ten crew processed Sitka Sound roe on kelp for about ten days. According to Richard Walsh, about five days of this time was consumed addressing the siltation problem. The cleaning effort was worth while, as it effectively salvaged the product and improved both grade and price.

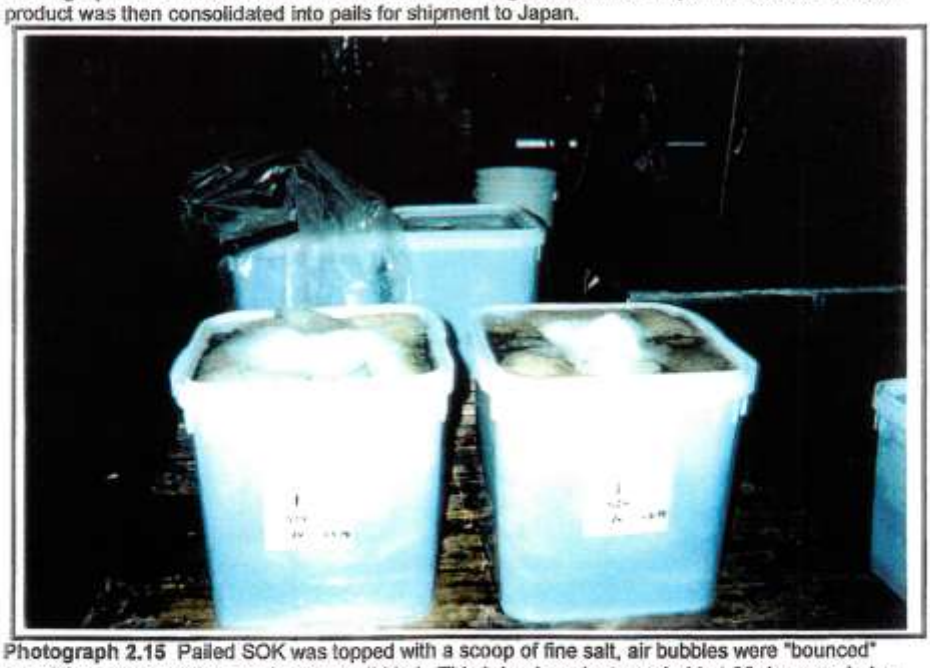


Photograph 2.11 About 50 totes of SOK were harvested from Sitka Sound during the test fishery. Blades were treated with a saline solution until the product was saturated with brine. The Sitka Producer's Cooperative crew processed SOK from two rafts, and shipped totes from the other two rafts to Bellingham to remove fine silt with specialized equipment.

Photograph 2.12 Kaneway Seafoods processing experts guided Sitka Producers' Cooperative crew members in trimming and grading Roe on Kelp produced in the 1998 test fishery.

Photograph 2.13 Roe on Kelp grades are based upon kelp quality and size, and on thickness and uniformity of the herring spawn deposited on each blade. Sitka Sound SOK was of very good quality, and was well received by consumers in Japan.

Photograph 2.14 The SPC crew drained and then weighed SOK into 17-pound baskets. Graded product was then consolidated into pails for shipment to Japan.



Photograph 2.15 Pailed SOK was topped with a scoop of fine salt, air bubbles were "bounced" out of the pails, and then each pail was lidded. This brined product was held at 10 degrees during storage and shipping. 57, 038 pounds of roe on kelp was produced during the test fishery.

2.6 Product Quality Assessment and Marketing

Sitka Sound "Kazunoko Kombu" was graded both in Sitka at the SPC plant and at the Home Port Seafoods plant in Bellingham. Richard Walsh was responsible for directing all grading. All graded and pailed ROK was held at the Bellingham Cold Storage for buyer evaluation.

In advancing along the learning curve through the execution of this experimental fishery, some SOK grading criteria were not met. These are parameters which influence the ultimate price for the product and which can be improved upon in the future:

- Some *Macrocystis* kelp was too young and exuded mucilage such that eggs did not adhere well.
- The size of most of the blades used was slightly smaller than ideal – broader blades would have been more acceptable.
- The egg coverage was generally very good, some was not consistent
- Kelp "melting" – some kelp showed signs of deterioration at processing time.
- Silt was present in some of the product, even after extensive washing
- Egg sloughing, or "peeling" occurred in a small percentage of the product, and is related to kelp deterioration

Pacific Coast SOK Quality Comparison

Kanaway's Souter and Dan Nomura offered the comparison that Sitka Sound product was better than the quality of SOK harvested in California – which is graded at a scale about two levels lower than was PGA's product. Within the region, Souter and Nomura estimated that PGA's SOK not quite on par with BC production. Nomura indicated that the Sitka Sound area resources are of sufficient quality to potentially produce BC grade SOK, but the BC fishermen's technique is more refined for dealing with Northern roe on kelp production.

In Nomura's opinion, Hoonah Sound SOK is still top quality in southeast Alaska – so superior that it fills a unique niche for extremely thick, or "jumbo" SOK in the Japanese gift market. Both in quality and in price, Sitka Sound product quality is between that of Craig/Klawock and Hoonah Sound.

Product Purchase by Japanese Importers

Upon inspection of the lots in late June, Kanaway Seafoods concluded negotiations on the sale of the product with the Japanese buyers. Their apprehensions regarding the purchase of product from a new location and some concern over residual silt in the roe inspired a very thorough inspection of product quality. The buyers concluded that most of the product was of good quality for the target market. Buyers purchased the entire volume.

Sales of the product were finalized on 29 June 1998. Dan Nomura provided the following information on weights and grades assigned to the product.

Summary of Kanaway Seafoods Final Production and Settlement Report
Prices and Total Values Reported are Net, Less 3.3% Processor Tax

Grade	Weight (pounds)	Percentage By Grade	Price per Pound	Total Value ($$$)
1	11,821	21%	$ 7.58	89,603.18
2	30,166	53%	$ 5.78	174,359.48
3	9,078	16%	$ 4.40	39,943.20
4	1,461	3%	$ 3.21	4,689.81
5	1,233	2%	$ 1.19	1,467.27
5P	1,137	2%	$ 0.45	511.65
5T	2,142	4%	$ 0.45	963.90
TOTALS	**57,038**	---	**(avg. $5.46/lb)**	**$261,538.49**

Once in Japan, Sitka Sound Roe on Kelp was fairly well received by retail buyers and consumers. The Japanese companies processed the brined ROK into a variety of products for distribution. Most of the product was sold to the more common restaurant and grocery store markets. According to Dan Nomura, a small amount of Sitka Sound product was sold through the gift market. Buyers reported that the products were broadly accepted alongside production from other locales (B.C, Hoonah and Craig).

Product Prices

Marketing consultant Dan Nomura conceded that the prices paid for the Sitka Sound product were lower than hoped for, but were acceptable considering market circumstances. The seafood market in general has been suffering from the low value of the Japanese yen, an unfavorable exchange rate, and the flagging Japanese economy. Since roe on kelp is a specialty market, it has suffered more than have markets for more essential goods. These factors, coupled with product unfamiliarity, yielded suboptimal prices for a developed product, but satisfactory prices for first year production.

Japanese importers have expressed an interest in purchasing SOK from Sitka Sound in the future. Nomura feels that this interest will support increased production of SOK from southeast Alaska. However, several significant hurdles must be addressed.

Based upon his recent research in Japan, Nomura has concluded that the corporate gift market for roe on kelp is shrinking, but prices remain high for the smaller volumes purchased in this market. Markets for thinner product, like that produced in Sitka Sound, are slowly expanding. A trend that began in 1997, in which a decrease in import prices led to expanding the market for these lower priced products, continues.

Most British Columbia and California producers currently cater to this market. About 1.5 year's of production from these sites is currently on inventory. Nonetheless, Nomura feels that if Sitka Sound SOK methods were refined to more specifically meet market

needs for a thinner, everyday Kazunoko kombu product, there will be opportunities for building markets for more SE Alaskan SOK.

General factors influencing the current market climate for Kazunoko Kombu and which will influence market expansion opportunities in the future include:

- Supply quantity of competitive sources of Kazunoko kombu
- Product quality
- Economic conditions in Japan
- Market niche development
- Pricing
- Inventory/Carryover
- Level of marketing effort and effectiveness

These issues present a challenge to the future of roe on kelp fisheries in Alaska. Experts such as Dan Nomura and Alaskan seafood marketing authorities are optimistic that implementing a well-devised strategy for producing consistently high-quality product to fit the needs of the thinner style Kazunoko Kombu market will yield favorable economic results in the long term.

Section 3. Subsistence Fishery Interactions

Prior to the test fishery, subsistence stakeholders in the Sitka Sound region expressed apprehension regarding the potential impacts of the SOK fishery on traditional and customary uses of *Macrocystis* kelp, herring stocks and the roe-on-hemlock-branch personal use harvest. In response to these concerns, the Board of Fisheries directed ADF&G to require the contractor to carefully monitor the test fishery and endeavor to ameliorate any conflicts that might arise.

Macrocystis for the experimental fishery was collected miles away from traditional harvest areas near Craig, Klawock, Hydaburg, and Sitka. Therefore, there was no competition for kelp with the traditional and customary harvesters of kelp or roe on kelp in those areas.

PGA hired Mike Miller, member of the Sitka Tribe of Alaska, to serve as liaison between subsistence harvesters and the test fishery team. Miller participated in ADF&G planning discussions and tribal meetings before the 1998 herring season. Community members, city officials and others interested in the fishery contacted Miller before, during and after the season to have general questions answered from his local perspective.

Miller remained onsite in Sitka Sound during every phase of the test fishery (Photograph 3.1). In addition to monitoring subsistence activities in the Sound during the fishery, Miller also assisted subsistence harvesters who wanted to suspend hemlock boughs near or on the HROK platforms (Photographs 3.2, 3.3).

Miller communicated daily with PGA's onsite biologist, Michelle Ridgway. Miller received no reports of conflicts or complaints from members of the subsistence community at any time. Subsistence harvesters setting branches or harvesting wild spawn on kelp near the platforms said they had no difficulty working around the structures or attendant vessels. Excellent harvests were reported by subsistence harvesters collecting branches set on, near or miles away from the HROK platforms during the 1998 season (Photograph 3.4).

Concerns and questions from locals regarding the test fishery were also directed to ADF&G, the Sitka Tribe of Alaska leaders and staff, and to the City of Sitka. A summary of responses to the test fishery from these organizations follows.

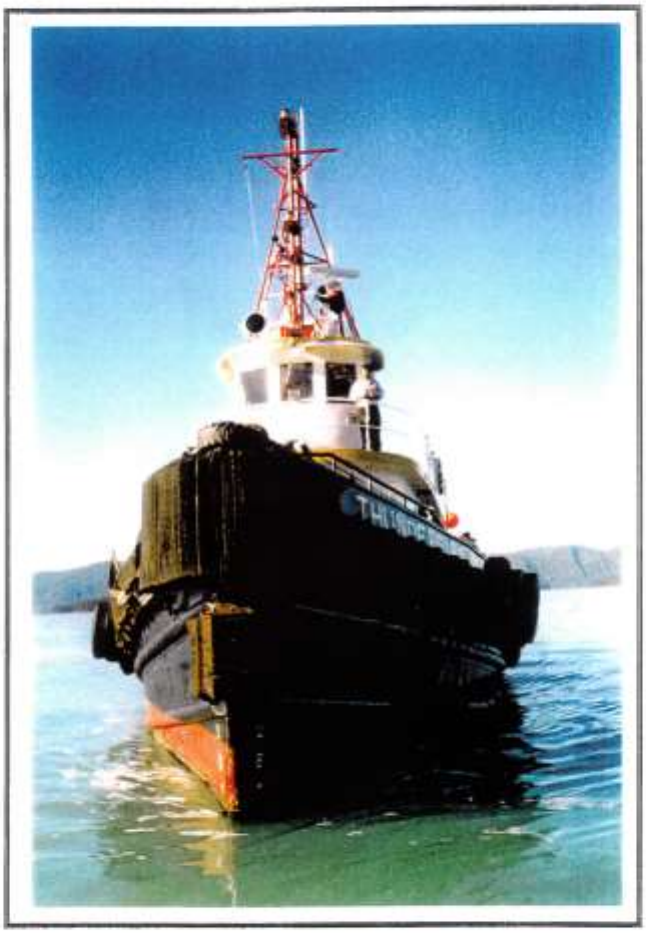
Alaska Department of Fish and Game, Sitka Office
Dave Gordon, Bill Davidson and Doug Mecum directed the 1998 Test Fishery in Sitka Sound. They indicated that members of the Sitka community were interested in the fishery, and frequently asked questions about the new gear type. But no one from the public expressed having conflicts with the fishing team or their gear during the test fishery.

"Neither the department nor the contractor's liaison with PGA received any complaints from individuals participating in the subsistence harvest of SOK or roe on branches." Doug Mecum, Reporting to the Board of Fisheries in Wasilla, October 1998

Sitka Tribe of Alaska (Also see Attachment H)
Reported by Jude Pate, Legal Counsel for the Sitka Tribe of Alaska
and Jack Lorrigan, Biologist for the Sitka Tribe of Alaska

Jude Pate observed the test fishery through daily boat excursions to the test fishing grounds, and filmed many aspects of the fishery. He also solicited and documented the responses of Tribe members to the fishery during and following the season.

Pate reported that the Sitka Tribal members involved in subsistence harvesting in 1998 reported "no conflicts with the 1998 test fishery participants or their gear". He conveyed that all test fishery participants were diligent in communicating with the Tribe, and are considered to have done an excellent job at conducting the test fishery.



Photograph 3.1 Paul Gronholdt, President of PGA, aboard the Tug Thunderbird – observing subsistence fishing near the test fishery platforms. All members of the PGA team shared in the responsibility of avoiding conflicts with traditional fisheries and adjusted test fishery operations as needed per PGA's subsistence liaison's guidance.

Photograph 3.2 Sitka Sound area subsistence fisherman setting hemlock trees in an active herring spawning area for gathering herring eggs on branches at North Kasiana Island, March 1998. The trees were anchored with rocks and tied to trees on shore. Within three days these trees were covered with 4-5 layers of herring spawn.

Photograph 3.3 Subsistence fisherman, setting hemlock trees for subsistence harvest of roe on branches near an open harvest platform used in the test fishery. Miller and others fishing branches in the area had successful harvests and indicated that the platforms were not an obstacle to their gathering of herring eggs.

Photograph 3.4 Sitka Sound area subsistence fishermen enjoyed an excellent harvest of herring eggs on hemlock branches in the 1998 season. With over 60 miles of spawn in the Sound, there was a multitude of sites available near town for traditional egg gathering.

Section 4.0 Environmental Considerations

The conservation merits of the open harvest platform roe on kelp fishery were evidenced during this experimental fishery. Relative to sac roe and closed pounding fisheries, there are some clear resource conservation benefits. It is beyond the scope of this report to analyze these conservation aspects or to assess environmental impacts incurred during the OHP fishery.

Rather, we report here our observations made during the fishery, and mention the research undertaken by the Alaska Department of Fish and Game. Some commentary on potential impacts of this fishery and contrasts with environmental concerns arising in other herring fisheries are discussed briefly.

Alaska Department of Fish and Game Research

In order to learn as much as possible about the OHP fishing method and the impacts of this experimental fishery upon herring stocks and the *Macrocystis* resource, ADF&G initiated a research plan during the spring 1998 season. Department statistician, Dave Carlisle, designed a randomized sampling program to estimate the total amount of herring eggs deposited on kelp blades. These data were used to estimate the total amount of herring "participating" in the OHP experimental fishery.

Sitka management biologists and their crew carried out the sampling plan, and other southeast technicians conducted the egg deposition counts. In addition, ADF&G staff was present for every phase of the fishery. They recorded field observations, which might provide insight into impacts of the OHP method (Photographs 4.1 – 4.3).

In their preliminary report, ADF&G estimated that 10.5 billion eggs were deposited on kelp blades in the fishery. Based upon results of their fecundity study, ADF&G estimated that 104 tons of herring were utilized in the fishery. The conversion of herring to pre-brine weight of SOK is 0.26.

ADF&G reported that PGA harvested about 10,000 pounds (5 tons) of *Macrocystis* kelp, which included 4,080 fronds, each with an average of 16 blades, for a total estimate of 65,280 blades. The Sitka Area Management Biologist and his staff visited the harvest site on the north shore of Heceta Island about six weeks following the harvest. They reported that "there was no obvious impact on the kelp bed".

ADF&G's detailed findings from this research and data analysis are forthcoming. A summary of their preliminary research results is presented in the Progress Report to the Board of Fisheries, dated October 16, 1998.

The *Macrocystis* Resource and Kelp Bed Ecosystem

Southeast Alaska harbors extensive beds of *Macrocystis* kelp, but the biomass, distribution, and ecological role of these kelp beds is not fully known. The increase of herring roe on kelp fisheries in recent years has created competition for high quality kelp blades that are mature at the time of herring spawning activity. After conducting the test fishery, the PGA team feels that there is good quality kelp in southeast to support the growth of the roe on kelp fishery. However, a strategy may be needed to ensure that every fishery group has access to high quality kelp at the time of their fishery.

In other Pacific coast regions with active roe on kelp fisheries, harvesters and managers have encountered times when high quality kelp was not available in sufficient abundance to support the fishery. This dearth of kelp has been due in part to factors including inter-annual variability, low light in spring months leading to poor early season growth, and possibly overharvests. Kelp scarcity has been experienced in Canada and California. In order to continue producing roe on kelp in some areas, British Columbia recently allowed roe on kelp "pounders" to harvest kelp in marine parks.

We do not yet understand the impacts of *Macrocystis* harvests on the plant, the kelp bed, or the marine community this habitat supports. We feel that the selective harvesting of fronds from some plants did not impact the kelp bed extensively. Because the harvest occurred early in the growing season, it is likely that emergent understory fronds replaced the biomass harvested by late summer.

Ridgway's observations of the kelp bed in July and September suggested that this was so. Non-quantitative observations indicated there were no gaping holes or obvious signs of damaged kelp in the bed that was harvested.

Marine species flying or swimming near the kelp beds at the time of harvest did not seem to be disturbed. We presume that the use of outboard engines, coupled with surface canopy frond removals would cause motile species to relocate – at least temporarily. The broader ecological implications of this kelp harvest are not yet known.

Herring Resources and Health

Both environmental and conservation benefits of the passive OHP fishing method for the herring stock are numerous. As described in Mundy, *et al* 1998, we observed herring volitionally swim into the kelped platforms and voluntarily spawn on hanging kelp blades. The fish were never herded and the PGA fishing team did not observe any signs of the herring being stressed when spawning. Even in the presence of crewmembers on the rafts, herring proceeded with spawning at a leisurely pace. It was assumed that most fish spawning on OHP kelp had already spawned elsewhere, or were destined to do so following deposition on the "fishing" blades.

Thus, herring "participating" in the OHP fishery contribute to the genetic diversity and gamete abundance of the Sitka Sound herring stock, and they swim away to return for potential spawning in subsequent years. The effects of this fishery on herring therefore seem to be in the removal of an unknown percentage of each spawner's gamete production.

Some other potential environmental consequences of the OHP fishery include:

- Herring seem to be attracted to the shelter provided by the platforms – their migration or spawning on wild habitat may be altered.
- Anchors used to secure the rafts may have some impact on the benthic community, but this is assumed to be minimal.
- Some blades may break away from the platforms, and eggs may slough off of blades to the seafloor. This may attract scavengers, and the sloughed eggs may not hatch. The impact of this is assumed to be negligible.

Based upon observations made during the experimental fishery, these impacts appear to be minimal and have no inordinate or long-lasting environmental consequences.

Comparison of Environmental Consequences in other Herring Fisheries

In contrast to other herring fisheries and unlike other roe on kelp methods, the Open Harvest Platform method in not lethal to herring or *Macrocystis* kelp. The OHP manner of harvesting results in a removal of gametes from the herring genetic pool and partial removal of biomass from individual kelp plants.

Herring involved in the traditional sac roe fishery are either killed, or are held while roe composition is determined, and then released. Ultimately, they are considered dead.

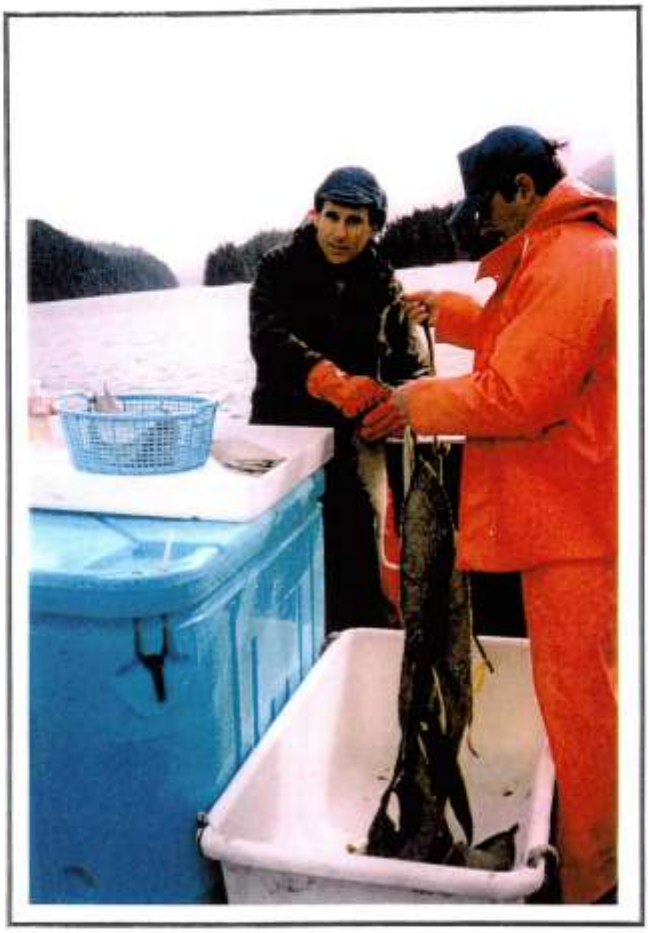
Seined herring introduced into closed herring roe on kelp pounds are allowed to spawn for several hours to several days. Because there is no reasonable means of counting the number of fish in the pounds, Commercial Fisheries Director, Doug Mecum, noted that "we are unable to regulate the amount of herring in each (closed) pound" (January 1998 BOF Meeting, Sitka).

This situation has led to fishermen exceeding the herring quota in these fisheries on numerous occasions. Additionally, some fishermen and observers of the fishery report that the fish are clearly stressed while in the pound, and upon release.

Recent research in Prince William Sound has confirmed that closed pound herring have a high rate of viral infection. In 1998, this VHS virus was isolated from the water of three pounds in PWS in sufficiently high levels to transmit the disease to nonimmune fish.

Wild harvests of roe on kelp in Alaska involve the taking of whole seaweed plants using knives, rakes, or by handpicking. In contrast, *Macrocystis* is not killed or dislodged during harvest for use in the OHP fishery.

Because herring are neither crowded nor stressed when using the OHP method, the environmental consequences incurred in the sac roe and closed pound fisheries are not at issue. This sublethal take of both herring and kelp resources is more beneficial to the genetic integrity of those species and likely contributes to potential sustainable yield of those resources.



Photograph 4.1 The Alaska Department of Fish and Game, Commercial Fisheries Division developed a rigorous research plan to gather data on the experimental fishery.

Section 5.0 Economic Review

Although the 1998 experimental fishery was, by design, not a profitable endeavor for PGA, a review of the costs and benefits resulting from the fishery are useful for predicting the potential scale of economic impact the alternative fishery could have on Sitka. Benefits derived by the Sitka Community through the 1998 experimental SOK fishery included direct income to locals through short-term jobs, and moneys generated through taxes and retail sales of goods and services.

This section is not intended to serve as an economic analysis of the spawn on kelp industry. Figures on the revenues generated in the fishery are in section 2. Comparisons of the economic yields in various herring fisheries are reviewed in Mundy, Sharr and Ridgway, 1998. This section provides a synopsis of the types of expenditures incurred in the fishery, and an approximation of the labor force involved in each phase of the operation.

Sitka Area Jobs

An average of about ten local people worked at Sitka Producer's Cooperative processing roe on kelp for about seven days. They were paid through contractual arrangements between SPC and PGA. Four other southeast residents were contracted by PGA to assist with the kelp harvest (two from Sitka, two from the Craig area).

Eight to ten people worked on further processing at the Home Port Seafoods plant in Bellingham for ten days. Had the product not been silted, or if proper equipment had been available in Sitka to handle the silt-cleansing task, this employment would have been based in Sitka.

Two consultants from the Lower 48 and two consultants from southeast Alaska were hired by PGA for onsite monitoring of the fishery, to serve as local liaisons, and to report on performance of the test fishery. These contracts were for one to several weeks in duration.

In order to monitor and conduct research on the experimental fishery, ADF&G tasked southeast staff with project-specific duties. This resulted in additional work for field technicians, statisticians, lab technicians, and Sitka area management staff. Most of the additional staff time and associated costs were compensated for by the contractor's required surety bond with the State.

Overall Labor Force Involved in the Fishery

Fishing by the Open Harvest Platform method is very labor-intensive. Since most captains and crew were new to this fishery, the test fishery involved a great number of people for some parts of the operation. Over time, crews may become somewhat more efficient, but the sophisticated nature of the fishery requires a great deal of attention to detail, and always requires more labor than the direct harvest herring fisheries.

Based upon logbooks entries and notes made by PGA team members, the table below summarizes the estimated number of workers involved in each phase of the test fishery in 1998.

Sitka Sound Herring Roe on Kelp Experimental Fishery Report
Paul Gronholdt and Associates March 1998

Estimated Number of People Involved in the Experimental Fishery				
Phase of the Fishery	Number of People Involved *			Approx. Number of Person-Days*
	Total	PGA Crew	Contractors Or plant crew	
Mobilization and Staging	6	6	0	24
Kelp Harvest	9	4	5	11.25
Loading Racks w/ Kelp	37	31	6	27.75
OHP Fishing	10	8	2	40
Towing Rafts to Harvest	8	8	0	8
Harvesting in Cedar Cove	30	30	0	45
Harvest/Transport to SPC	6	6	0	9
Processing at SPC	8-12	0	8-12	70
De-Mob in Sitka	4	4	0	4
Processing at Home Port	8-10	0	8-10	90
Loading/Shipping to Japan	3	0	3	0.75
Marketing/Sales Effort	1.5		1.5	30
TOTALS	—	—	—	359.75
*Est. person days = average number of people X estimated # days worked on that task				

General Expenditures in Sitka

Beyond the investment in equipment and costs to mobilize in Sitka, the PGA team incurred some expenditure while conducting the fishery in Sitka. These general costs included the following:

- Barge Lease
- Lodging for some PGA members
- Restaurants and groceries: (About 30 people for six days)
- Fuel for five vehicles and some vessels
- Three rental cars
- Taxicabs
- Entertainment
- Harbor Fees
- General purchases -- supplies

The community of Sitka received some benefits through city sales taxes. And 3% of the total ex-vessel price of the roe on kelp product was paid to the State in raw fish taxes. A percentage of this contributes to the City of Sitka's community apportionment of statewide raw fish taxes.

Discussion and Final Remarks

The 1998 Experimental Fishery proceeded largely as anticipated. PGA's collective experience, as well as good weather and an early herring spawn contributed to the overall success of the fishery.

The roe on kelp suffered from the silt infiltration, but otherwise the product met expectations reasonably well. The price paid was sufficient to cover most costs for conducting the experimental fishery and associated research and management. The PGA team feels that the quality of product can be improved with increased monitoring of seawater conditions prior to and during the fishery.

The Sitka Community did not experience any resource user conflicts as a result of the fishery. Commercial and subsistence harvesters appeared to be either unaware of the fishery, or content with the manner in which it was conducted in Sitka Sound.

Within the scope of the PGA team's ability to observe impacts on the marine ecosystem, the fishery met many of the anticipated environmental and conservation goals. Neither fish nor kelp plants were likely killed in this "harvest".

Final Remarks

The quantity of Sitka Sound SOK available for harvest in the future is dependent upon the abundance of spawning herring and *Macrocystis* kelp and management decisions regarding their exploitation rates. The Alaska Department of Fish and Game, the Commercial Fisheries Entry Commission and the Board of Fisheries will determine resource assessment, quotas and allocation issues.

The overall market outlook is challenging. Experts conveyed that implementation of a strategic plan to tailor roe on kelp production to fit emerging market trends is necessary to ensure SE Alaska's product a niche in this specialty market arena. Participants in the 1998 experimental fishery concur that meeting these market needs with more refined Sitka Sound roe on kelp product is plausible. The PGA team feels that pursuing this market potential and hence diversifying the herring fishery management regime will provide broader economic benefits from this resource to the people of southeast Alaska.

ASSESSMENT OF *MACROCYSTIS* BIOMASS, QUALITY, AND HARVESTING EFFECTS IN RELATION TO HERRING ROE-ON-KELP FISHERIES IN ALASKA

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and

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[1] The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data, this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

ABSTRACT

Interest in harvesting *Macrocystis* kelp for use in herring roe-on-kelp (ROK) fisheries is increasing, but information on the biology and ecology of kelp is limited for southeast Alaska. This is a report of a four month pilot study to evaluate the amount of kelp available for harvest and the recovery rates of kelp from harvest. Estimating the amount of kelp available consisted of first estimating the total abundance of kelp in a survey area and second estimating the biomass of available and desirable kelp. The total biomass was estimated by surveying the surface area of kelp beds in selected regions on the west coast of Prince of Wales Island. Randomly selected index beds were surveyed to determine kelp density, and samples were measured and weighed to estimate the average weight of kelp. An estimated 225,225 tons of *Macrocystis* kelp were found in the survey area. The harvest of kelp for ROK is highly selective. By comparing harvested to available kelp, it was found that blades at least 14 cm in width and fronds with a high proportion of desirable blades were selected. The proportion of blades and fronds meeting these selection criteria was estimated for the index beds, and the biomass of desirable kelp was estimated to be 32,663 tons or about 14% of the total kelp biomass in April. The growth in kelp canopy was rapid from March to April, with March canopies about 45% smaller than April canopies. Therefore, the biomass of desirable kelp in March was about 18,000 tons. Even if kelp harvests increase 10 times over present levels, the harvest will only represent about 3% of the lowest estimate of the biomass of desirable kelp.

There were few significant effects of experimentally harvesting kelp canopies in March and/or April. Kelp beds that were experimentally harvested at both times or only in April had shorter fronds and possibly fewer large fronds and fronds per plant. This experiment was monitored only one month after the last harvest, so there may not have been sufficient time for the cut kelp to fully recover. This preliminary experiment indicates that kelp recovers rapidly from harvesting in the spring.

INTRODUCTION

Kelp beds are a conspicuous element of the outer northeast Pacific Coast (Foster and Schiel 1985). All kelp belongs to the order *Laminariales* (*Phaeophyta*), and are made up of holdfasts, stipes, and blades. Some of the kelps produce floats that buoy them to the surface, these are known as the canopy forming kelps. The giant kelp, *Macrocystis* sp., is a well known canopy forming genus that occurs in much of the coastal Pacific Ocean. The terminology associated with *Macrocystis* is fairly complex as is the morphology (Figure 1), consisting of an attached holdfast with numerous fronds supporting numerous blades. *Macrocystis* often grows in thick beds that form a unique and important habitat.

Kelp beds play an important role in nearshore ecosystems in at least three ways (Duggins 1988). Kelp beds greatly increase the habitat complexity, increase sedimentation rates, and contribute large amounts of fixed carbon to the ecosystem (Duggins 1988, Duggins et al. 1989). Kelp beds provide as much as 15 m^2 of surface area for every square meter of substrate (Wing and Clendenning 1971), providing habitat for infaunal and epifaunal organisms (Duggins 1988). In addition, several species such as fish, mysids, and shrimp utilize kelp beds extensively (Coyer 1984). Juvenile and young-of-the-year fish may exhibit particularly strong, positive relationships with kelp beds (Carr 1991, Ebeling and Laur 1985). Kelp beds can also be significant sources of production, contributing large amounts of carbon in the form of attached plants, drift plants, particulate organic matter (POM), and dissolved organic matter (DOM) (Duggins et al. 1989). This carbon production is not limited to kelp beds as some of the unattached plants drift outside of the bed with some pieces drifting miles from the source bed. In areas with lush kelp beds, about 50% of the total carbon in some fishes and birds is derived from kelp primary production (Duggins et al. 1989). Finally, kelp beds alter the flow of water in and around the bed (Jackson and Winant 1983). This altered flow results in higher sedimentation rates that may increase suspension feeding and recruitment of planktonic larvae. Altered flow caused by kelp beds may also increase the availability of planktonic food sources, such as barnacle cyprids, to resident kelp bed fish (Gaines and Roughgarden 1987).

The morphology of kelp blades has been shown to be dependent upon water movement in many kelps (Norton 1969, Druehl 1978, Norton et al. 1982, Koehl and Alberte 1988). In low flow areas, blades generally have more undulations, are larger, wider, and are not split. *M. integrifolia* shows similar plasticity in growth form (Druehl 1978, Hurd et al. 1997). This plasticity in growth form is highly functional. Undulations dramatically increase drag forces, resulting in higher blade mortality in high flow regimes, but in low flow areas the undulations serve to increase nutrient uptake by initiating turbulent flow around the blade (Hurd et al. 1997). Also, larger blades are better able to gather light but cannot withstand the drag and accelerational forces exerted by wave action (Denny et al. 1985).

There has been interest in harvesting kelp for various purposes on the Pacific Coast of North America since at least 1911 (Foster and Schiel 1985). In California, about 100,000 tons of kelp are harvested annually for various products. Harvesting north of California has been sporadic, with few large scale commercial harvests. In British Columbia and Alaska *Macrocystis* kelp is harvested to support the herring roe-on-kelp (ROK) fishery. Since the price paid for the end product is dependent upon the quality of the kelp blade, harvesting kelp for ROK is highly selective. In particular, fronds with many wide blades are desirable.

The research described here was initiated due to interest in harvesting kelp for a roe-on-kelp (ROK) fishery near Sitka, Alaska. A proposal was made by commercial harvesters to the Alaska Board of Fisheries in 1996 to allow Sitka Sound herring sac roe purse seine permit holders the option of using open pound racks to harvest herring roe on kelp. This would be in lieu of, or in addition to, using purse seines. The board took no action on the proposal at their 1997 meeting, but requested that the department conduct

an experimental gear test fishery. The department conducted the test fishery in 1998 focusing on management issues related to the pound fishery and the gear. A second test fishery was conducted in 1999 primarily to fund the kelp research described here, as well as to revisit some issues related to fishery management. A second proposal to allow for a roe-on-kelp fishery in the Sitka area will go before the board at their 2000 meeting.

An understanding of the abundance and dynamics of giant kelp, *Macrocystis* spp., is essential to manage the use of this alga for existing and emerging herring ROK fisheries. Kelp harvests in Alaska are currently being managed with limited knowledge of kelp abundance, growth, or recruitment. In conjunction with other roe-on-kelp fisheries, the Sitka Sound open harvest platform herring roe-on-kelp test fishery presents the possibility of greatly increasing the harvest pressure on *Macrocystis* kelp resources. At least two pieces of information are needed to properly manage kelp harvests in Alaska, 1) the amount of kelp that is available and desirable for harvest, and 2) the effects of harvesting on kelp beds and associated communities. This report provides a preliminary assessment of the abundance of *Macrocystis* kelp resources in Alaska. Also, the results of an experiment assessing the short term effects of harvesting on kelp beds and the ability of kelp beds to recover from harvests are reported.

METHODS

Standing Crop Estimates

Aerial Surveys

Aerial surveys of kelp beds on the west coast of Prince of Wales Island were conducted between March 23-29, 1999 (Figure 2). The coastline was surveyed by Scott Walker, an experienced ADF&G herring spawn recorder. During the flight all significant *Macrocystis* kelp beds were marked in red pen on black and white charts by the surveyor, recording the approximate outline of each bed. The area around Duke Island and Tree Point was surveyed on 11 June 1999.

The resulting maps with marked kelp beds were analyzed to ascertain the surface area of kelp beds. The original maps were scanned into digital format (Figure 3), and an image that included only the red "kelp beds" was produced from the original scanned image (Figure 4). These two images were produced with Adobe PhotoShop. Using an image analysis program (Optimus), the original image was used to scale the red only image, using landmarks of known length. An averaging procedure (5x5 pixels) was applied to the red-only image to eliminate small lines, numbers, and letters within the red patches. The red patches were then automatically outlined, and any remaining unwanted "holes" or other images were removed by hand. The image analysis program then determined the total area of mapped kelp beds and the data were downloaded to Excel for analysis. The Duke Island and Tree Point survey was not analyzed due to relatively low *Macrocystis* abundance and limited time.

Index Beds

One index bed was randomly selected from each subdistrict surveyed, resulting in a total of 11 index beds. To select a bed, a randomly placed point was located in each subdistrict. The bed that was closest to the point and was at least 20 m^2 in surface area was selected. To estimate the growth of beds during the spring, these index beds were photographed during the March aerial survey and on April 28, 1999. Photographic methods were consistent between dates and the altitude was recorded for each photograph. For each index bed, a pair of photographs, one each from March and April, were selected based upon similarity of photograph angle, direction, and altitude. The photographs were scanned into digital format and analyzed using Optimus image analysis program. All canopy forming kelp was outlined by hand using the image analysis program and the total area of kelp plant canopy (excluding water area between fronds) was obtained. This is not the same measure of the surface area of beds obtained from the hand-drawn bed maps in March which includes water area between fronds.

The April photographs were calibrated using a photograph of an object of known dimensions taken from the same altitude. The March photographs were calibrated by measuring a distinctive object in the April photograph and using the same object as a scale in the March photograph. This procedure insured that each pair of photographs were calibrated similarly. If the calibrations were off, they were off by the same amount for each date so between date comparisons could still be made.

To estimate the length of fronds and the density of plants and fronds, four index beds were visited between April 19-24. The density of kelp in each bed was estimated by scuba divers. Six transects were oriented perpendicular to the long axis of the bed and placed at even intervals along the length of the bed. If transects were longer than 20 m, then 20 m long sections were sampled at the inside edge, outside edge, and approximate center of the transect. The total length of the transect was recorded as well as the distance between transects. The start and end depths of each transect were also recorded. Divers swam along transect lines and counted the number of large (>1.5m) and small (<1.5m) *Macrocystis* fronds for each holdfast encountered within one meter of the transect line. Every tenth frond was measured for length starting with the tenth frond.

Commercially Harvested Bed

Kelp was harvested for the Sitka Sound open harvest platform test fishery from a bed on the northeast side of Port Alice in Sea Otter Sound (Figure 2). This bed was surveyed by scuba in March just after the harvest and again in April as part of the index bed survey. The methods of survey were similar to the methods used for the index beds. The total harvest taken from this bed was recorded.

Frond Biomass

To estimate the average weight of fronds, 22 fronds of varying length were weighed and measured. The fronds were cut into 1 meter sections starting from the tip and working towards the base. The weight and section number were recorded for each section. At the base, the length of the final piece was also recorded. Thus, the total weight and length of each frond could be determined.

Total Biomass Estimates

The total biomass was estimated by multiplying the total surface area of kelp beds (March) by the average density of large fronds (April) and the average weight per frond (April). The average weight per frond was estimated by multiplying the ratio estimator of average frond weight/average frond length from the weighed fronds by the average length of fronds in the index beds. The relationship between frond length and weight was linear and had a zero intercept, so using a ratio estimator was appropriate. The surface area of the beds drawn in March was assumed to remain constant through April for purposes of this calculation.

An estimate of the variance associated with the total biomass estimate was generated by combining variance estimates for both frond density and average frond biomass. Frond density averages and variances were weighted by bed size (Cochran 1977). The variance associated with the average frond biomass was calculated using the methods of Barnett (1991).

Estimated Versus Harvested Biomass

Two small beds were surveyed by scuba divers to assess the accuracy of the biomass estimates. The beds were small (<150m^2) enough that an entire frond count census was completed for each bed in one day by two scuba divers. Every tenth frond was measured for length. After surveying, the canopy was harvested from both beds and the total frond biomass was harvested from one bed. All harvested material was weighed. Thus, the estimated biomass from scuba sampling could be compared to the actual biomass obtained by harvesting.

Desirable Biomass

Blade Morphology

The morphology of individual kelp blades was examined to assess the desirability of kelp. Three fronds from each of ten systematically located points in the Port Alice bed were collected before any commercial harvest occurred. The tenth, fifteenth, and twentieth blades from the apex were detached and measured. The youngest free blade was counted as blade number one. The total length and maximum width of each blade were measured. In addition, the number of holes in the blade, the general condition of the blade, and the presence or absence of epiphytes and silt were recorded. The harvested kelp was also sampled. Forty haphazardly selected fronds were collected from the harvested kelp and three randomly chosen blades were sampled. The morphology of blades sampled before harvest was compared to commercially harvested blades to determine the criteria used to select blades sampled.

Fronds were collected from the four visited index beds to determine the proportion of desirable blades over the entire region. Fronds were collected over dive transects. The initial goal was to collect a frond at three locations (inside edge of bed, outside edge of bed, and in the center of the bed) along each transect,

but time constraints often reduced the sample size. Blades were then sampled in the same manner as the blades in the harvested bed.

Frond quality was assessed by comparing the number of desirable blades out of the three sampled blades between fronds from various locations. As with blade morphology, frond selectivity was determined by comparing the fronds available in the harvested bed before harvest to the fronds actually harvested. The proportion of fronds desirable over the entire region was then determined by using the sampled fronds from the index beds.

Biomass Estimates

The biomass of desirable kelp was estimated by multiplying the total area of kelp beds by the density of desirable fronds by the average weight of fronds harvested. The density of desirable fronds was estimated by multiplying the total frond density by the proportion of fronds that were available and the proportion of fronds desirable obtained from the index bed surveys. Available fronds were defined as those that were at least 5.3 m in length. This definition was needed to eliminate those fronds that did not reach the surface (average depth of about 3 m) and have enough additional length to harvest (2.3 m, obtained from the average length of harvested fronds).

The variance component of the biomass estimate was obtained by combining variance estimates from the average weight of harvested fronds and the average density of available and desirable fronds.

Effects of Harvesting

Experimental Design

The goal of this experiment was to assess the impact of harvesting on kelp beds. Three kelp beds in the Craig area were used (Figure 2), and four 20 m transects were permanently established in each bed perpendicular to the depth contours. Kelp density was estimated using the techniques described above for index beds for each study plot before any treatments were assigned.

All transects were marked, numbered, and surveyed between 24-25 March 1999. After the initial survey, the experimental treatments were assigned to the transects. There were four experimental treatments, 1) March harvest (early), 2) April harvest (late), 3) March and April harvest (early+late), and 4) an unmanipulated control. Each of the four treatments were randomly assigned to the four plots in each bed. After treatments were assigned, the plots receiving the early and early+late treatments were harvested by cutting all fronds around the mean low water mark. An 8-meter wide swath centered on the transect line was harvested. The late and early+late plots were similarly harvested after sampling in April. All plots were resurveyed using the standard dive measurements on 24-26 April and 15-16 June 1999.

RESULTS

Standing Crop

Aerial Surveys

The aerial survey identified 751 distinct beds from eight regions on the west coast of Prince of Wales Island (Table 1). The average bed size over the surveyed area was 46,936 m^2 ranging from 415 to 886,774 m^2. More than 35 million square meters or 3,524 hectares of kelp beds were surveyed (Table 1). It should be emphasized that this is only a partial survey of *Macrocystis* kelp on the west coast of Prince of Wales Island. It is estimated that this survey represents about 60% of the kelp in this area. In addition there are kelp resources around Baranof Island, Sumner Strait, Kuiu Island, and Duke Island but the area of these resources is unlikely to exceed the kelp beds on the west coast of Prince of Wales Island. In 1913, Cameron (1915) estimated there are about 45,300 acres (18,332 hectares) of kelp in southeast Alaska, but only a small portion of this was *Macrocystis*.

Density Estimates

Many characteristics of kelp populations at the index beds were evaluated using the information from scuba surveys (Table 2). The selection of Port Alice was heavily biased and the scuba surveys reflect this bias. The density of plants, large fronds, and frond length were all greater at Port Alice compared to the index beds (Table 2). The density of small fronds and the number of fronds per plant at Port Alice were both within the range observed at index beds. The overall density of individual plants was about 0.34/m^2 (excluding Port Alice data). There were more large fronds (mean of 2.44/m^2) than small fronds (0.46/m^2) at all index beds. The number of fronds per plant ranged between 3.8 and 12.5 with an average of 9.3. Excluding Port Alice, frond length was relatively constant between sites and averaged 6.1 meters.

The average depth of the 4 index and 3 experimental harvest beds was 3.28 m below mean low water (MLW), ranging from 1.25 to 6.13 m below MLW. The depths at Port Alice were greater than at the index beds ranging form 4.27 to 9.45 m below MLW and averaging 7.08 m below MLW.

Frond Biomass Estimates

There was a linear relationship between the length of a frond and its weight (Figure 5). Length was a good predictor of weight, explaining 88% of the variation in frond weight. Since a plant of zero length cannot have any mass, the intercept must be zero. In this case a ratio estimate (average weight:average length) is a simple method to estimate average frond biomass from a sample of lengths. The ratio generated from the data in Figure 5 is 0.39 kg/m. The average length of fronds at the surveyed index beds was 6.11

meters, so the average weight per frond was 2.37 kg. (0.39 kg/m* 6.11 m). The variance about this estimate was 0.065, calculated using Barnett's (1991) method.

Total Biomass

The estimated biomass of kelp in the areas surveyed was 204,319,652 kg (225,225 tons) with an 80% confidence interval of ±43,802,512 kg (48,284 tons). Based upon the weight per unit area, this estimate corresponds to "very thin" beds reported by Cameron (1915) and the June harvest yields of Coon (1982).

Estimated Biomass Versus Harvested Biomass

The estimated biomass at both beds was greater than the actual harvested biomass (Table 3). At Pt. Ildefonso, only the canopy was harvested, so the biomass below the harvest level was left. This site, however, was only 2-3 m deep, so the amount that was left was minimal. Not all of the harvested material was weighed as some fragments drifted away before weighing.

Desirable Biomass

Blade and Frond Quality

The harvest of kelp for the roe-on-kelp fishery was highly selective with both blades and fronds being chosen for high quality. According to Richard Walsh (personal communication) of Home Port Seafoods in Bellingham, Washington, the two most important factors in grading kelp blades is the overall health and the blade width. For the 1999 SOK fishery, kelp blades in the 14-16 cm size range or higher were selected relative to the blade widths available in the bed (Figure 6). At Port Alice, blade widths in the bed did not change between March and April (Figure 7), but blade areas increased from March to April, indicating that blades grew in length but not width (Figure 7). The width of blades varied between the index beds (Figure 8). Eagle Island had narrow blades with few blades wider than 16 cm. Those blades that were wider than 16 cm were often torn and broken. There was a higher percentage of both narrow (<14 cm) and wide (>20 cm) blades at Harmony Island relative to Port Alice. The few samples taken at Balena Island indicate that most blades were in the 14-18 cm range. At Port Real Marina, blades were very wide with almost all blades more than 16 cm wide, but most blades at this site were covered with fine silt or damaged by grazers.

To evaluate the quality of fronds, the three blades sampled on each frond were rated as desirable or undesirable. A desirable blade had to be at least 14 cm wide, have few small holes, no large holes, free of silt, and not torn. Virtually all of the harvested fronds from Port Alice used in the test fishery had 2 or 3 desirable blades of the 3 sampled (Figure 9), and the percentages used in these two categories were

greater than the available fronds in the Port Alice bed. In the index beds, 38.7% of blades had 2-3 desirable fronds. Most of these desirable fronds were found at one index bed.

Available and Desirable Biomass

To determine the biomass of kelp available and desirable for kelp harvest, both the density of large fronds and the weight per frond needed to be adjusted for the selection of fronds. The density of fronds available for harvest was calculated by multiplying the total large frond density by 51.25%, which is the proportion of fronds that were longer than 5.3 m. The threshold length of 5.3 m was deduced as follows: The average depth of beds surveyed by scuba in this study was rounded down to 3 m below MLS, and this length was added to the average length (2.3 m) of the cut segments of fronds harvested for the Sitka ROK fishery. That is, a frond must be at least 3 m to get to the water surface and then be an additional 2.3 m to make the frond worth harvesting. Thus, the estimated density of available fronds was the average frond density, (2.45 fronds/m^2) (Table 2), times the proportion of fronds longer than 5.3 m (0.5125) with a result of 1.26 available fronds/m^2. The proportion of desirable fronds in the index beds was 38.7%. Therefore the density of available and desirable fronds is 1.26 available frond/m^2 times 0.387, equal to 0.486 available and desirable fronds/m^2. The average weight of harvested fronds was 1.73 kg/frond. Thus, the biomass of available and desirable fronds in the surveyed area in April 1999 was 29,631,711 kg with an 80% confidence interval of $\pm$20,161,522.8 kg, or about 14% of the total kelp biomass.

Growth of Beds - March to April

The canopy cover within all index beds increased from March to April (Table 4, Figure 10). The percent increase in cover ranged from 12% to 311% with a mean increase of 82%. Thus, beds in March will average about 45% less canopy than beds in April. If there is a linear relationship between canopy cover and biomass, then the April biomass estimate can be appropriately reduced to obtain a March biomass estimate. Decreasing the April biomass estimate by 45% results in a total biomass in March of 112,375,808.4 kg and a desirable biomass in March of 16,297,441.3 kg.

Effects of Harvesting

Over three months there were few detectable effects of harvesting upon *Macrocystis* plants or beds (Figure 11). To account for variation in the starting densities or lengths, differences between the June sampling date and the pre-harvest March sampling date were statistically analyzed (Table 5). Average frond length was significantly lower on plots harvested later in the season compared to the early harvest or control plots (Figure 11F, Table 5). There were also marginally significant decreases in the density of large fronds and the number of fronds per plant in the plots harvested in both March and April (Figure 11C, E, Table 5). There were no detectable effects of harvesting on the densities of plants, small fronds, or juveniles (Figure 11A, B, D, Table 5).

DISCUSSION

The total biomass estimate is made up of aerial surveys of the extent of kelp beds, estimates of frond densities, and estimates of frond weight. Each of these three components can contribute to errors in the biomass estimation. Any error inherent in the aerial survey methods was not quantifiable, so the estimate of total kelp bed area was treated as a census with no error in the analysis. There may have been errors in recording the extent of individual beds during the surveys with some beds being overestimated in size and others underestimated. Also, there may have been errors in identifying *Macrocystis* beds. Some *Nereocystis* beds may have been included in the survey, resulting in an overestimate of *Macrocystis* area. Conversely, some *Macrocystis* beds may have been identified as *Nereocystis* beds, resulting in underestimation of *Macrocystis* bed area. Without performing multiple surveys over a single area, it is impossible to estimate these sources of error. A more accurate and efficient method of estimating the area covered by *Macrocystis* needs to be developed. Aerial photography from belly or wing mounted cameras using infrared film would eliminate errors in canopy area estimation and has been used in British Columbia (Foremen 1975) and in Alaska (M. Ridgway, Oceanus Alaska, personal communication).

The error estimates for total biomass were obtained from a combination of the estimates for frond density and frond weight. Frond density estimates made up about one third of the error estimate for total biomass while the frond weight estimates accounted for the remaining error. The disparity between the error contributions of frond density and frond weight indicate that relatively more effort should be devoted to sampling frond weight. A more efficient approach would be to have fewer transects per bed (about 5), sample more beds, and sample about 30 more fronds for weight and length. However, the precision of the sampling was within 22% of the mean with 80% confidence intervals, indicating a reasonable estimate of the total kelp biomass in the surveyed area.

For the two small beds examined, the biomass estimated by scuba surveys was higher than the harvested biomass. Part of this difference was due to handling the fronds in the process of weighing, resulting in the loss of an unknown amount of material. Only the canopy at Point Ildefonso was harvested, so some of the estimated biomass was left on the sea bottom. With these sources of error, the harvested biomass may have been within the range of variation of the estimated biomass. More beds need to be surveyed and harvested to determine if the scuba surveys consistently overestimate the available biomass.

Estimating the amount of kelp desirable by the ROK fishery proved difficult. The quality of kelp blades is mainly dependent upon blade width and blade health, defined by the absence of holes, tears, and debris. In addition, fronds with a high proportion of desirable kelp blades are selected over other fronds. Since blade and frond quality can only be assessed by field sampling and the estimates for the proportion of desirable kelp reflects sampling from only four beds, the precision of the biomass of desirable kelp was quite low (±68%). More beds need to be surveyed to make more accurate estimates of desirable biomass.

Blade morphology is dependent upon wave exposure and currents (Druehl 1978, Hurd et al. 1997), so it may be possible to predict the quality of blades in kelp beds if the exposure of the bed is known. The water flow regime for any particular area depends upon many factors including the fetch, bottom topography, local land masses, and the wind regime. It may be possible to sample blades and fronds in a variety of kelp beds varying in exposure and relating the blade morphology to a derived exposure index. The health of kelp blades also seems to be indirectly dependent upon water flow. Both grazing and fouling seems to be greater in protected areas. Waves may limit the activities of herbivores (Menge and Sutherland 1976) and prevent fouling organisms from colonizing. Thus, in very protected waters, as at Port Real Marina, kelp blades may be wide but their quality may be low due to severe grazing and

fouling. At the exposed Eagle Island site, few grazers or epiphytes were observed on the sampled kelp blades.

The canopy area of kelp beds declines in winter and reaches a maximum in late summer (Harrold and Reed 1985, Foster and Schiel 1985, Dayton 1985, Watanabe and Harrold 1991). Thus, kelp canopies increase in area during the spring months. The extent of kelp canopies increased by an average of about 82% from March to April. The canopy available for harvest in March is about 55% of that available in April. Since the Sitka Sound herring typically spawn in March, the kelp available for herring ROK is much less than that available for later herring fisheries.

The estimate of bed surface area, obtained in March, is surely a conservative estimate of bed area in April. Because the March estimate was used in the calculation of total biomass in April (using April estimates of average frond density and mass) the total biomass estimate must be regarded as conservative.

Effects of Harvesting

The effects of harvesting kelp have been examined in numerous studies. Of the studies surveyed here, five were done in *M. pyrifera* beds in California (Miller and Geibel 1973, Kimura and Foster 1984, Barilotti et al. 1985, Barilotti and Zertach-Gonzalez 1990) and Chile (Santelices and Ojeda 1984), and two were done in British Columbia in *M. integrifolia* beds (Druehl and Breen 1986, Coon and Roland 1980, Coon 1982). Of these seven studies, all but one (Coon and Roland 1980, Coon 1982) suffer serious flaws in experimental design. None of the remaining six studies were replicated and each harvest treatment was represented by a single area or bed and compared to a single control area. All but one of these unreplicated studies were guilty of pseudoreplication (Hurlburt 1984) by applying inferential statistics to replicate samples within one experimental unit. The remaining study (Druehl and Breen 1986) did not use statistics in their study and differences were judged by intuition and experience. The results of these studies are frequently contradictory. For example, harvesting kelp has shown increases, decreases, or no change in kelp growth, holdfast growth, frond production, and plant survivorship. Hence, the results must be interpreted with extreme caution.

Of the studies that examined recruitment, all found that recruitment increased when kelp was harvested. The only significant effect observed in this study was a decrease in the average length of fronds in harvested areas. The lack of significant results in this study does not necessarily indicate that there was no effect of harvesting, but may be a result of low replication of treatments. Also, the experiment has only been monitored once, two months after harvest, so any long-term effects have not been determined. This experiment implemented the maximum harvest possible under current regulations, and the lack of detectable effects indicates that the more limited harvest done by the ROK industry may have little effect on kelp beds. These experiments need continued monitoring and expansion to estimate potential long-term effects of harvesting on kelp bed and associated communities.

CONCLUSIONS

This study has provided some preliminary answers to the questions of 1) how much kelp is available and desirable for harvest, and 2) what are the effects of harvesting on kelp beds and associated communities? There appears to be enough kelp available in the surveyed area to support all Sitka Sound herring purse seine permit holders harvesting ROK with the following assumptions. There were more than 225,225 tons of kelp identified in this study. There are 51 permit holders in the Sitka Sound purse seine herring fishery. If each were permitted to conduct an ROK operation and if each harvested 5 tons of kelp (hypothetical amount based upon the test fishery), then the total kelp harvested would be 255 tons. Total *Macrocystis* harvests to support other ROK fisheries in Alaska (Craig, Hoonah Sound, Prince William Sound, and Nome) were 25 tons in 1998, and as high as 44 tons in 1992. If harvests for all of these fisheries, plus the Sitka fishery, were to occur in one season, the total harvest would still be less than 300 tons. This represents about 0.1% of the biomass of *Macrocystis* in the surveyed area. If the kelp harvests are not concentrated in any one bed or area, there is a low probability of depleting the kelp resource. In addition, the effects of the most severe harvesting allowed are apparently minimal. A more complete survey should be performed to survey all of the *Macrocystis* resources in Alaska. If a good photographic system is developed, a thorough survey should be practical. In addition, kelp density should be monitored yearly on a few representative kelp beds to ascertain yearly fluctuations in kelp density. Kelp beds often have dramatic yearly changes in abundance that are related to El Nino events (Dayton et al. 1984, 1992, Dayton and Tegner 1984, Tegner and Dayton 1987, 1991).

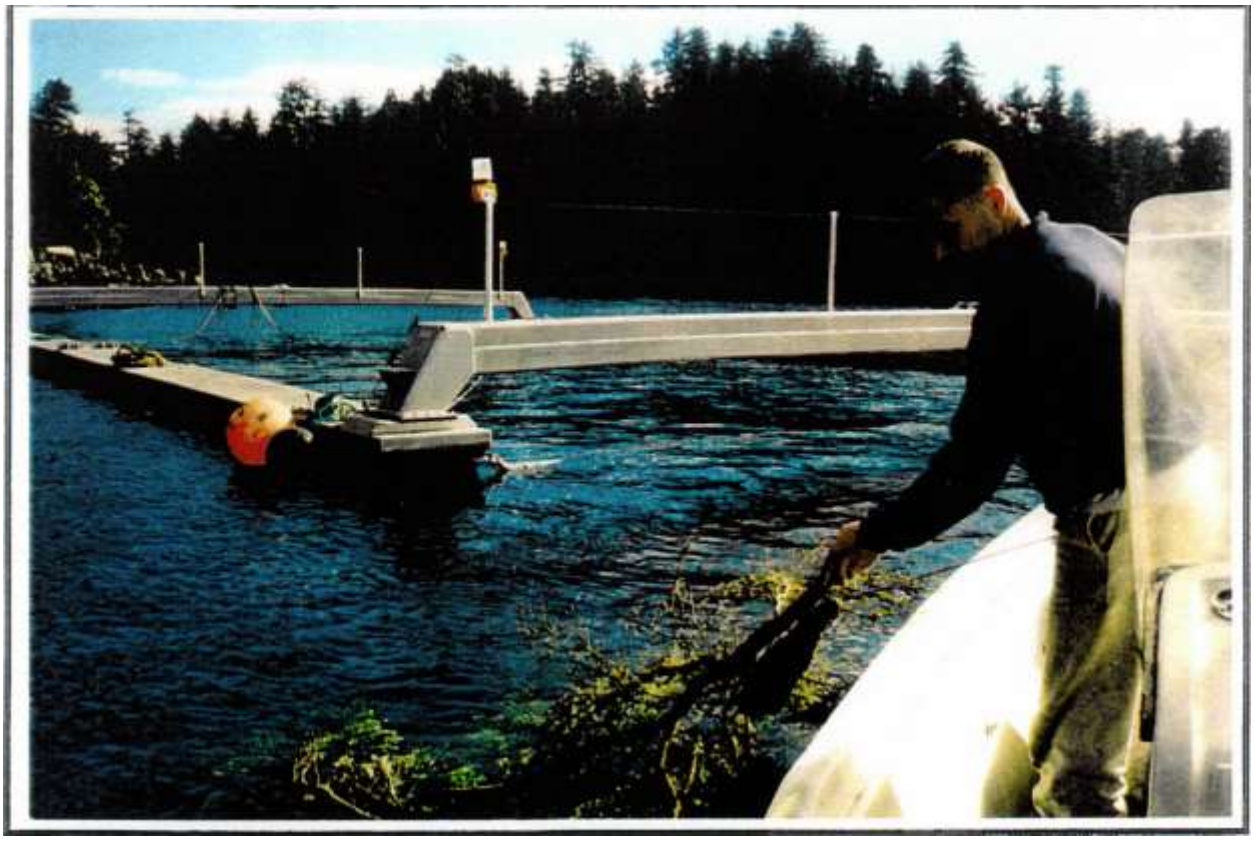
Increasing the demand for high quality kelp may result in conflicts among users for more desirable kelp. Of the 225,225 tons of kelp surveyed only about 14% of this kelp was deemed desirable to the ROK industry. A total harvest of 300 tons would represent about 1% of the estimated amount of desirable kelp available; however, the estimate for the amount of desirable kelp is very uncertain. The low estimate of desirable kelp is about 10,000 tons, and the maximum potential harvest is 300 tons, resulting in a potential harvest of 3% of the desirable kelp. If this harvest is concentrated in a small number of areas, as it has been in the past, users may find desirable kelp hard to locate and conflicts may occur among users. The estimate for the amount of desirable kelp needs to be improved. This can be accomplished by visiting more beds to sample more blades. It appears that the width of kelp blades does not vary at a site over the season, so a kelp bed can be evaluated at any time during the spring and early summer.

We observed few lasting effects of harvesting on kelp beds. This experiment was limited in scope and duration and should be monitored, continued, and expanded in spring of 2000. The effects of harvesting the same bed every year as well as harvesting only once need to be assessed. In addition, the effect of harvesting on the kelp bed community needs to be evaluated. Given the high growth and production rates of *Macrocystis* elsewhere (Lobban 1978a, 1978b, Coon 1982, Wheeler and Druehl 1986, Jackson 1987), it is anticipated that kelp recovery from harvesting should be completed by the end of summer for harvests in March or April.

Based upon the preliminary results of this study, there was sufficient kelp in March 1999 to support the currently proposed Sitka Sound ROK fishery assuming total harvests would be in the neighborhood of several hundred tons. Conflicts between users may occur over access to high quality kelp, but these conflicts may encourage harvesters to locate currently unused high quality beds. The effects of harvesting on kelp and associated communities appears minimal or negligible, but this needs to be verified by further research.

Open Pounds and the Traditional Subsistence Fishery

The photo below was taken during the 1998 experimental fishery. Subsistence users set their hemlock branches near the open pounds. The pounds were anchored and tied in such a way as to not impede subsistence activities from taking place. There is concern that more pounds fishing will impede the subsistence fishery but there will still be plenty of area to suit the needs of both user groups.



There are plenty of fish available to both open pounds and subsistence users. Using the 27% conversion ratio from the ADFG report, 185 tons of herring can produce around 100,000 pounds of spawn on kelp (SOK). The current amount necessary for subsistence (ANS) for the Traditional fishery is between 136,000 and 227,000 pounds. Using the same conversion for SOK and comparing to the current ANS the total amount of herring needed to meet ANS would be between 250 and 420 tons. The amount of herring required for the upper end of ANS represents less than 1% of the forecast biomass in 2015. Also, the SOK fishery would not remove additional herring from the biomass increasing opportunity for subsistence needs to be met. Put simply, there is plenty of fish and area for everyone to coexist.

Herring Spawn-on-Kelp

An Update of Market Variables Affecting Demand in Japan

Jumbo No.1 Product

Seasoned Product

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1. Executive Summary

This report provides a concise review of market and economic factors influencing the current and future demand for BC Spawn on Kelp in the Japanese market.

The world's second largest economy is undergoing 'moderate' deflation for the first time in 40 years. This was before the calamitous events of and since September 11 this year.

Key feature that will affect demand for BC Spawn on Kelp (SOK) are:

- Higher priced food products are under pressure to deliver value, quality and supply consistency
- In the face of poor economic conditions, high debt and consumer purchasing shifts, several of the major sales channel members and sectors for food products in Japan are suffering declining sales and profitability.
- Seafood consumption in Japan appears to be holding its own against dramatic increases in beef and pork sales over the past decade (at least) as Japan strives to adopt more western eating habits.
- Japan's customary gift giving seasons remain intact, but 'givers' are seeking lower priced goods and are purchasing gifts for more occasions.
- BC's SOK production remains in a market leadership position, but faces pressures to deliver more consistent quality. The US and Russia are the two countries that could significantly increase production.
- Few reprocessors of SOK in Japan dominate the 'front end' distribution
- The total supply of SOK to Japan is relatively small and must be inventoried to permit rear round supply, resulting in limited attention to market growth in consumption.
- Price of imported SOK appears to be both a function of classical supply and demand as well as the appetite of the importers (trading companies and reprocessors) to attain annual market share goals
- Very little if any BC or Canadian 'branding' is carried forward to the end user in Japan.

Opportunities and recommendations include:

- Japan is the market of choice for any increased BC production in future
- The market can absorb more product and if increases are modest over time, may result in minimal price declines, if any, and increased consumption across all sales channels
- Production of thinner SOK could offer an opportunity to increase sales due to higher perceived value; new production techniques may be required

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- BC producers and primary processors need to improve quality consistency in concert with buyer requirements – work with the market players, they are BC's only customer!
- ROK is a relatively healthy convenience food and can be promoted as such
- A super premium quality product, fresh light brine or no brine ROK could be tested for a high end application, delivered by air freight, in-season
- The Japanese market is complex and tradition bound – don't try to outsmart the market; work with market 'partners' for a win-win strategy to increase sales and consumption, should the need arise
- Carrying forward BC/Canadian identification and possible producer 'branding' to the end-user should be investigated as both a defensive and offensive strategy
- The BC SOK industry stakeholders should consider maintaining its market leadership through supply and market expansion to avoid being beaten to the punch by Alaskan and/or Russian competitors
- Resources should be found to investigate other markets for BC SOK, as a defensive strategy.

2. Project Scope

The focus of this report is to provide an overview of the most important economic and demographic drivers of demand and consumption for seafood, and Spawn-on-Kelp (SOK) specifically, from the perspective of this consultant.

The report presents a compendium of market information to incorporate into a broader assessment of the SOK industry being proposed by E. Blewett & Associates in their assignment for Fisheries & Oceans Canada.

An extremely tight time frame permitted for this project limited the number of market and SOK production contacts and their feedback; therefore the results are presented on a best efforts basis.

Opportunities and constraints of increasing consumption of SOK are described and Conclusions and Recommendations are presented.

3. Current and Market Situation

❖ Japan Economic overview

Japan's economy has been in difficulty for some time and has just entered its fourth recession in 10 years. Japan is the world's second largest economy yet

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has the unenviable record of currently having the highest public debt (which includes massive bad debts at the nation's banks) in the western industrialized world.

In March, 2001, the Government of Japan admitted a state of 'moderate' deflation of its economy, for the first time in the last 40 years.

Prior to September 11, 2001, the world's powerhouses of the US, Europe and Japan were struggling to lift out of a global meltdown. Since that time, all indicators are pointing negative.

Experts say that Japan's woes are deeply rooted; business and industry needs an overhaul, but they caution that now is not likely the time to tackle painful reforms, given the severity of the economic slump in Japan, as well as with its major trading partners.

Some significant economic indicators in Japan, relevant to this report, are:

- Consumer prices and consumer spending has fallen for three consecutive years
- Japan's retail industry is undergoing restructuring pressures: Mycal, Japan's 4th largest retailer, filed for bankruptcy protection in September, one of the largest corporate failures in Japan's history.
- Job cut fears are softening consumption, particularly on high priced goods, causing an upswing in personal savings
- Hopes for Japan's economic recovery, both broad and related to its consumers appetite for high priced goods, is closely linked to the condition of the US economy.
- The consumer trend to a more Western diet is ongoing, particularly among the nations' young and those with higher disposable income. Many of the more traditional Japanese products (including food products), are declining.

❖ Sales channel trends

Due to the economic conditions outlined above, the retailing sector is exhibiting structural changes. Discount chains are strengthening their presence, while foreign retailers such as Costco and Carrefour are continuing their aggressive entry into the Japanese market and thus, are accelerating the severity of competition in the retailing sector.

Hardest hit have been the general merchandise sector, which includes supermarkets, which saw a 5.3% decline in total sales versus the previous year. Convenience stores are still flourishing but sales and operating profit appear to have peaked or are weakening.

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In the foodservice sector, take-out lunchboxes and delis are becoming a driving force due to the changes in people's lifestyle and consistent with the savings minded Japanese consumer attitudes.

It is indicated in several industry reports (e.g. DFAIT Japan Fisheries Market Report, May 2001), weak economic conditions are seeing declining consumption at higher priced restaurants and sushi bars.

On a brighter note, there is an increasing trend to eating out dining at chains and independent restaurants specializing in 'revolving belt' sushi outlets (Nihon Shinbun Kyokai [NSK], October 21, 2001).

Japan's heritage of gift giving continues. It is customary to give gifts to business associates, colleagues, friends and family members. Some notable characteristics of gift giving in Japan are:

- Historically, the two key gift giving periods are summer season called "Ochugen" and a winter season called "Oseibo".
- Poor economic conditions have seen a decrease in terms of both the number of gifts given and their value, particularly during the winter season. Despite this trend, gift giving is still a large 'industry' ($US 90 billion in 1999), with food products composing approximately 20% of this total.
- There is a trend to give more gifts more often (at other times of the year) and on more occasions.
- Typically, gifts are of higher quality and traditionally high image brand names have been important.
- Seasonal gifts are sold primarily through speciality wholesalers to upscale Department Stores, upscale Retail stores and speciality gift stores. Increasingly, the convenience store sector has started carrying a limited selection of gift items.

❖ Seafood consumption trends

Seafood consumption in Japan remains among the highest in the world and continues to rely heavily on imported products ($US 16 billion), with Canada's share in 12th place (547 million, 3.4% of seafood imports).

Seafood imports by Japan will likely continue to increase in volume in future years due to declining domestic fishery and aquaculture supplies as well as high seas catches. The changing appetites of Japanese consumers for convenience foods and healthy eating can continue to be fulfilled by seafood products as producers, reprocessors and the retail/HRI sectors satisfy these demands through new product development and branding programs.

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❖ Beef, pork and poultry trends

Consumption of beef, pork and poultry have increased dramatically in Japan during the past 10 years consistent with the changes in demographic makeup and an appetite for western foods. Time trends in food intake, indicate an increase in meat consumption of 13% compared to 3% in seafood consumption (1990-1997, Japan National Survey by Ministry of Health and Welfare)

The recent mad cow disease scare in Europe has spread to Japan. Short term impact is seeing a dramatic fall off in beef consumption. To date, no increase is seafood consumption has been noted (Bill Atkinson News Reports, Oct. 22, 2001)

❖ Roe-on-Kelp production & consumption trends

Production and Price trends:

- According to DFAIT/Ni-Ka Online, imports of herring Spawn-on-Kelp decreased substantially (by 32.6%) in terms of volume from 869 mt in 1999 to 586 mt in 2000. A sharp decline in imports from the United States from 329 mt in 1999 to 34 mt in 2000 was the major reason for this decrease in the total import. Reflecting the decrease in the quantity, the average import price for both Canadian and US products has recovered slightly from 1,876 yen per kg (C.I.F.) in 1999 to 2,118 yen per kg in 2000 for imports from Canada and from 1,357 yen per kg in 1999 to 2,160 yen per kg in 2000 for imports of the US.
- **Note**: there are some interpretation questions in these statistics that remain unresolved. For example, the US fishery statistics indicate production from both Alaska and San Francisco was 236 mt In 1999 and 87 mt. in 2000 (0 from Alaska). Comparing these figures to those above indicates possible carryovers in production within the US, or inaccurate import statistics. Similar analysis has not been tested in other years or for other countries production versus import statistics.
- Embassies and Fisheries Departments were contacted in countries that have prior SOK production (Finland, Iceland, Sweden, Norway, Atlantic Canada, S. Korea and Russia). Responses are as follows:
    - Atlantic Canada: Newfoundland had reserved a quota of 200 mt for 1999/2000, but reports no landings in recent years. More information may be forthcoming.
    - Russia: embassy staff report no knowledge of a fishery for this product, more information may be forthcoming, but statistics are poor, particularly for exports.

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- S. Korea reports no knowledge of production
- Finland, Iceland, Sweden and Norway have yet to respond
- Note: time may provide insights to the lack of information, but it appears that export statistics of this product are not readily available, or perhaps non-existent due to small production quantities in these countries.

➢ A significant buyer of BC, Alaska and San Francisco SOK that I spoke to indicated no recent production from Iceland, Sweden, Norway or S. Korea. He did indicate, however, that:

- Finland produced 26 mt in 1999, 12 mt in 2000 and none reported to date in 2001.
- Russia produced 42 mt in 2000 and none reported to date in 2001.
- Russia has been encouraged to develop a fishery and has produced limited and intermittent quantities in recent years. Poor weather, ice, inadequate resources and training have impeded development of a fishery there, to date.
- The San Francisco fishery is of limited herring biomass, so there is little likelihood of increase SOK production in future.
- The area with the largest potential to increase production, outside of BC), is Alaska. Much of the herring roe fishery in Alaska is frozen in the round and exported to Japan and China for processing into brined roe for Japan. The prices received by herring roe harvesters in Alaska is significantly below what could be obtained if they transferred their quota to SOK. Alaskan fishery regulators would support this, but some of the existing herring permit holders are reluctant to support a conversion initiative, to date.

Consumption trends

➢ Due to poor economic conditions in Japan, the traditional sales channels for this product have been shifting from high-end Japanese restaurants, sushi bars and gift items to less expensive venues. In addition:

- Poorer quality product is being processed into less expensive retail packs for department store and grocery store consumption (including seasoned products) in greater quantity than the past.

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- "Japanese trade people engaged in importing, distribution or processing hold that the development of the market in this direction will be the only way to increase (sales) prospects for this product in the Japanese market". (DFAIT Japan Fisheries Market Report, May 2001)

❖ Currency factors

BC Herring SOK is purchased in Canadian dollars. The value of the Japanese yen to the Canadian dollar during the time of purchase of SOK could influence the price paid in BC and the resulting selling prices in Japan (in Yen/kilo).

This consultant was not provided with BC selling prices to determine if this factor is 'in play' in price determination. However, analysis of the movement in the value of the dollar vs. the yen was tracked back to 1995 and average import prices of a number of seafood products in yen per kilo were examined:

- It appears that there is little, if any, relationship between the strength or weakness in the yen and the selling prices of a number of seafood products in the Japanese market (salted herring roe, Ikura, King Crab, Northern Shrimp).
- The highest prices in yen/kilo in Japan for SOK was in 1995; this was also the year in which the yen was strongest against the dollar, compared to subsequent years. This price effect may have resulted in higher prices paid to harvesters in BC.
- In Japan, other factors are believed to be of greater influence in determination of the end-user price:
  - supply and demand
  - market share goals of importers and reprocessors
  - quality of the annual 'pack' on average
  - 'in-market' factors such as inventory levels, disposable income, reduced demand for higher priced food products and reduced expenditures on eating out at high end restaurants

❖ Roe-on-kelp purchasing dynamics

BC SOK permit holders are restricted to an 8 ton quota. Permit holders are also required to weigh their product after brining and are given a 6% overage allowance for brine uptake.

It was reported to this consultant that a 'scandalous' practice that has gained in popularity is to obtain an official weight prior to brining, then brine the product and boost the weight. This allows the 'real' quota to be exceeded. However, to maintain maximum roe quality, the product must be brined as soon after harvest as possible. The delay in brining caused by the aforementioned practice decreases quality. It was reported that this practice is generally carried out with

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the knowledge of all parties. Japanese buyers have difficulty in detecting quality deterioration due to 'sampling error' at time of inspection of sample lots.

❖ Dominance of few re-processors

Few Japanese reprocessors exist for SOK. Current information indicates that Taniya continues in a dominant position (estimated at 70%) in reprocessing and supplying to all sales channels in the Japanese market.

Despite this dominance, other reprocessors vie for market position and influence the price paid to trading companies/importers in any given year. It was reported that the major historic buyer of SOK, Taniya continues to be the major force today.

❖ Channel player health

The distribution system in Japan from raw material purchase (BC SOK) to trading company to re-processor to wholesalers and major channel players has not been simplified for this product – the health of each segment makes a difference to the operation and health of the whole.

The Japanese food retail and food services sector is both in transition and under serious price and profitability stress due to the weak Japanese economy, high debt and shifting consumer purchasing behaviour. Current reports of business failures and poor financial performance are common

Change will be the 'constant' over the near future, at least. If the sales channel members responsible for sales of SOK were to experience serious financial difficulties or were to shift their product focus, further price erosion could take place.

❖ Supply size

The supply of SOK is relatively small compared to other seafood imports and food products in Japan. This low volume characteristic results in a reluctance by channel players below and including the reprocessors to spend much time and/or marketing funds on channel expansion, regional distribution expansion or internal promotion. This relationship if further aggravated, under current economic conditions, by the positioning of SOK (BC's in particular) as a high priced/luxury product.

❖ SOK Branding

There is very little if any producer/exporter brands or country of origin labelling of SOK being carried forward to the end-user in Japan. (Note: on the cover of this

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report is a photo of seasoned ROK, (Cheena brand), which shows a display window in the shape of a Canadian flag. It is not known if this product is marketed in Japan – Cheena has gift shops in Vancouver, catering to Japanese tourists).

Brands are extensively used by reprocessors, importers, food distributors and retailers in Japan that form the basis of building awareness, preference and consumer promotion activities.

4. Opportunities and Recommendations

4.1. Market Expansion: Japan or beyond?

Any market expansion strategy, in this case to expand consumption/sales, would either focus on methods to expand existing market(s) or expand current or future distribution into new markets

A marketers' primary analysis of these options would focus on cost and benefit of the alternative strategies. Typically, the cost of developing a new market(s) would be far higher, complex and time consuming (years) than an existing market.

Primary reasons to look to new markets for SOK would be due to:

- Major impediments to market expansion in current market including economic factors (e.g. negative price elasticity which would see dramatic declines in price if supply were increased)
- Market research that indicate probable or defined interest to purchase by buyers and/or consumers in new markets (we haven't done this research beyond a few phone calls!)

It is my recommendation to focus on the Japan market, at least in the short term, to increase the market position of BC SOK or if required, to increase consumption.

Good or bad, there is a single market 'heritage' of consumption in this market aside from limited consumption of this product in other countries by Japanese expatriates and some eating establishments and gift shops catering to tourists and 'adventurous' diners.

- Quick investigation I did of consumption in nearby Asian countries turned up nothing (e.g. sushi bars in Korea that cater to Japanese tourists/business people do not currently offer roe-on-kelp – this despite that Korea eats many different fish roe products). Further investigation might prove this market to be of some potential, who knows!

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4.2. Supply and price relationship appears to be 'economically' elastic, with limits

Information from interviews suggest that an increase in supply of uniform 'high' quality SOK from BC, if in small increments, should not see a significant decrease in prices received.

Should this be achievable, the market can be grown without negative impact on prices received by BC producers.

4.3. Supply is very small in total in a large market

Despite the current price sensitivity to higher price goods in Japan, the quantity of SOK in the Japan seafood scene barely hits the radar screen.

Some observers believe that there is plenty of room for Japan market expansion of SOK across all sales channels, including the higher priced gift and upper end restaurant/sushi bar sectors.

Further, in order to present marketing and promotion opportunities for sales channel members in Japan, increased supply would be required, particularly as year round supply is essential to retaining consumer loyalty and purchase.

4.4. Retail marketing of SOK has been limited by limited supply and price

Marketing of SOK at the retail supermarkets has been limited, mainly due to price and the margin requirements of retailers. This channel has/is being used for lower priced product and seasoned product but has hardly been touched due to high historic prices and limited supply. This channel requires consistent and substantial supply to obtain shelf space and maintain 'listing's' or 'rental space' within the store.

If an economical production method could be developed to produce SOK with thinner roe coverage, it would be possible to offer less expensive product to this major consumer sales channel.

4.5. Japan's image of Canadian food products is positive

Japanese consumers have a high regard for 'western' and Canadian products, though price and quality have become increasingly important.

In order to differentiate BC SOK, a branding opportunity is presented to identify Canadian production.

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4.6. BC SOK is variable in quality

Despite quality grades set by BC processors and purchased by Japanese buyers after inspection, it was reported that quality is inconsistent within the set grade standards.

More stringent quality guidelines at time of inspection and purchase in BC could be implemented to improve quality consistency and reduce reprocessor costs of misgrades and grading in general in Japan.

4.7. Health and time-conscious consumers are increasing

Japan is tracking other western industrialized consumers in paying increasing attention to healthy foods that are easy and quick to prepare (e.g. low(er) fat and salt, microwaveable, etc.)

SOK fits the bill. It is effectively ready to eat. Brined herring roe by comparison is more time consuming to prepare and has to be soaked, washed and is typically re-seasoned prior to eating.

These features could be positively promoted.

4.8. Fresh-by-air SOK – possible?

High-end restaurants in Japan pay very high prices for the freshest products. Though I'm not aware if it has been attempted, it would be feasible to transport fresh product with little of no brine added to Japan via air cargo without suffering significant quality loss.

This would only be possible during the production season and likely for a limited quantity, but this may offer an additional 'top-end' channel to operate in (e.g False Pass/Copper River Sockeye – the first of the season).

4.9. Don't try to outsmart this market

One might be temped to look at expanding consumption and/or to increase price of SOK by leapfrogging the distribution system, jump in with BC producer branded product and market product directly to the highest priced sales channel.

Don't! Money down the drain.

It is my conviction that the best means to create a winning marketing strategy in a foreign land with a product like SOK, is to work with trusted 'partners' in Japan to co-devise the most sensible and cost effective marketing strategy. The plan

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must be win-win for all parties if it is to succeed and may indeed require some adjusting on the production and fishery management side in BC as well.

4.10. Beat 'em to the punch – keep BC's market leadership

BC is the market leader of SOK in Japan.

BC has seen eroding market share of its once leading 'wild' seafood products. SOK is an interesting product as a wild resource is utilized to produce finished product attributes that can be controlled and manipulated similar to true aquaculture practices.

It was described to me that both Alaska and Russia have the potential to increase production of SOK, given adequate resources and dedication. This may be a 'soft' challenge. If BC doesn't rise to the challenge, someone else may facilitate the growth of our competitors.

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ROK Marketing Questions and Answers

There have been market studies for roe on kelp (ROK) but the studies were completed over a decade ago. The market conditions surrounding herring roe products, both sac roe and ROK, have not changed much since these reports were written. In order to provide updated information a longtime broker of herring roe products was contacted. The following are questions and answers from the discussion:

How much of a market would be available for this "new" ROK product?

In 2004, there was an abundant supply of ROK coming out of BC/SE AK. I think in 2005 it was around 800 ton total supply. That volume was a real challenge for both seller and buyer. The sales prices were quite low and allowed for entry into new consumption markets. ROK became something that was accessible at pubs and such places versus something that was so expensive as to be served only at weddings and high end sushi bars.

New consumption channels arose and the 800 tons of supply did not appear so daunting as indeed the carryover inventory the following year was not as severe due to increased consumption.

The advantage ROK has over Herring Roe is that the image of ROK is not as heavily wedded to New Year's season consumption. As well, the combination of kelp with herring roe seems to be more appealing to some consumers than herring roe by itself. I seem to notice more sushi menus offering ROK in a visible manner versus herring roe.

Also, the supply of ROK is much smaller than Herring Roe. The Herring Roe market is sometimes said to be around 10,000mt. The supply of ROK tends to be in the 300mt to 500mt range. Total supply is much less than Herring Roe and increasing the supply of ROK, in terms of overall supply, is a much smaller number and should be easier to deal with - especially if we are talking about ROK being a staple of the sushi market which is a very robust and successful market in Japan.

The sushi market utilizes the thinner coverage production. The sushi restaurant market in Japan is thriving. (4,010 sushi restaurants in 2014)

The one thing I would caution is, the market for raw materials to use as sushi toppings is relatively deep - but it is price sensitive.

To come back to your question, I think there is market space for additional ROK product but it will be price sensitive in the short term. I would think that as the popularity and demand for ROK increases, gradual price increases are possible as long as supply does not have the wild swings that we have seen in the past.

The large harvest of 2005 then reduced harvests in 2006 and 2007 whereby in those two successive years the price doubled each year but the market shrank to match the available supply.

Would the additional product produced in Sitka be a detriment or complement to the products currently produced in SE roe herring fisheries?

Anything that decreases the availability of sac roe going to the Japanese market would be positive for the market. Allocating available resources from sac roe to ROK should be a net benefit. We are currently going through a period of suffocating oversupply on the sac roe side. This year's ROK supply was also quite abundant, being at least double of the year previous and this has had a deleterious impact on pricing but as mentioned previously the overall volume of ROK is much different than herring roe and poses different and I would say less daunting challenges. Let's remember that the supply of ROK really only comes from BC and SE AK whereas herring roe comes from more sources and in greater volumes. (Let's not forget herring roe also comes from Atlantic Ocean sources)

Thus, even though we had a sudden surge in ROK production this season that was over double of last season's harvest the volume is still manageable with the market taking a longer term view on consumption such as 18 months versus 12 months. Once again, the scale of volume we are talking about is much different for ROK versus Herring Roe. (2014 estimated harvest: Herring Roe – 8,400mt / ROK – 600mt)

What is the long term outlook for sac roe and ROK products?

The long term outlook for herring roe is stable consumption with we would hope growth due to the available supply of herring roe. Recent history would suggest that we will not see explosive growth in herring roe consumption. Closed Pound ROK or Open Pound ROK will likely be viewed the same in the market and would be compared by current quality attributes which assign value.

Is it safe to assume that if the sac roe price increases then the egg on kelp market would also see a corresponding increase?

Although they are different products per se, there is a linkage between the pricing of herring roe and ROK since they are similar products. This year would have been a good test case to see what kind of price differential would be possible had the harvest of ROK been limited. But, it is generally thought that the pricing of the two products cannot be vastly different.

Will adding ROK in Sitka will not be a detriment to already existing ROK fisheries in SEAK.

The history of ROK pricing may make this difficult. Because the ROK market is small in terms of volume and buyers, the price is quite sensitive to volume when the volumes are limited. The past 10 years have seen some volume swings and foreign exchange movements that have led to a wide range of pricing for SE AK ROK. The current context of high volume and the comparative weakness in the yen will make it hard to take the position that additional ROK from Sitka will not soften the market further. (although it looks like there are resource issues in Hoonah, Ernest Sound and Tenakee which may make SE AK ROK a scarce commodity even with a Sitka ROK fishery)

The market will not be taken away. There is room for market expansion, although the near term impact may be lower pricing until the market adjusts to the increased volume.

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TO WHOM IT MAY CONCERN

Subject: Sitka Sound Roe Herring Open Pound Fishery

I have been invited to provide testimony on the subject of SOK production in Sitka Sound. I would consider it a privilege. It is my sincere hope that the views expressed here may promote healthy discussion and perhaps, lead to the adaptation of policies which will benefit all in the industry.

I have been involved with SOK for the past 20 years. During those 20 years, my company has gained valuable knowledge and experience into the workings of the SOK market. In 1999, we purchased 260 tons of SOK from California, B.C., and southeast Alaska, including Sitka.

It is my understanding that if the full potential of roe herring is utilized, Sitka may one day become the leading SOK-producing region of the world. I have heard concerns expressed that such increase in supply would disturb the delicate balance of supply-and-demand and produce a negative impact on the already fragile market, and bring hardship to the existing permit holders of SOK. These are legitimate concerns and one must not take them lightly.
However, I am of the opinion that, reducing the supply to keep the price up can work only under certain market conditions - but not now. In the present market climate, it will only mean repeating the same mistake that already has led the SOK industry to its current predicament.

To explain further, first let us examine the reasons for the current downturn in the SOK market. In my opinion, the present difficulty is in large part due to reaction to excessively high prices of the past.

To elaborate on this point, I have attached two graphs following.
The dollar values used are the mean average prices for closed pound SOK from B.C. They show a dramatic price increase that peaked in 1995, only to be followed by an equally precipitous price drop, which continued unabated to 1999. The expression, "Where the mountain is high, the valley is deep", encapsulates the essential behavior of the SOK market.

Graph 1 shows the combined supply of SOK from all the North American production areas. Here the rising prices up to 1995 seem to correspond with decreasing supply. In the same token the declining price curve from 1996 coincides with increasing supply for that period. Here, a superficial examiner of this graph may jump to a hasty conclusion that this is the evidence of increased supply driving down the prices. However, he must be cautioned not to be so hasty.

Graph 2 shows same price curves. However, it is different from Graph 1 in that it shows only the closed pound production from B.C. and southeast Alaska. Here the supply of thick product was fairly consistent through the same period of great price upheaval.
Granted, there was a sizable supply increase in 1997. However, during the years that followed the declining price curve continued despite supply reached a plateau.
It is reasonable to conclude, then, that it was not the over-supply that affected the price of SOK, but some other factors were at work.

The single most important factor that has been driving the price down, in my opinion, is the economic recession in Japan. During the bubble economy years that lasted until early 1990's, Japanese consumers displayed great appetite for luxury. Consumption of expensive foods, including SOK, rose to record levels, and as those commodities became objects of speculation, the prices soared. But as the bubble burst, realities of economic recession set in, and the consumers backed off.

Take for example the kazunoko (herring roe) market. Despite the fact that the 1999 supply of kazunoko was the lowest in twenty years at less than 10,000 tons, the year-end gift kazunoko market plummeted. Conversely, lower-priced kazunoko in the form of consumer pack fared relatively well. Total consumption appeared to have been at par with supply.

The same situation manifested itself with SOK. Movement of thick SOK (jumbo & No.1 from B.C. and Alaska) was extremely sluggish, and the prices were down to record low levels. Thinner product, on the other hand, sold well, because prices were low enough to appeal to consumers.
These examples show that the market is constantly evolving, and that how important it is to stay in tune with the consumers' needs.

There are four main ingredients to successful marketing. They are:

- Healthy demand
- Consistent supply
- Reasonable price
- High quality

Of these, a healthy demand has to be ranked as the highest importance. If the high prices of recent years have alienated the consumers away, what the SOK industry must accomplish now is to find way to recapture the lost customers and generate new demand. Aside from making the product more appealing in terms of both price and presentation, the key is to make SOK accessible to a greater number of consumers. The task of generating demand is not a difficult as it may seem. For SOK possesses inherently superior product appeal. For instance, nine of ten people who actually tasted SOK will show a decided preference for SOK over kazunoko. This is an evidence enough that there is a huge potential for an untapped consumer market for SOK.

However, the size of the market can only be as big or small as the volume of supply. In this sense, the very limited supply that gave SOK the exclusivity in niche market is a fundamental weakness that prevent it from acquiring wide popularity. This point is clearer when one compares the supply of SOK against herring roe. In 1999, the total supply of herring roe was 10,000 tons, while SOK was just over 500 tons, barely 1/20th of kazunoko. This means that only a very few consumers had ever tasted SOK. Indeed, the majority of Japanese are even aware of its existence. The solution, then, seems to be to increase supply, while maintaining reasonable price and quality.

To this end, proposed alternative harvesting in the form on SOK in Sitka can make a significant contribution, especially if the open pound method is used. In the market where thick product by closed pounds dominates, thinner product by open pound will provide just enough diversity. It is possible that, instead of competing, producers of open pound and closed pound SOK can complement each other. By having the ability to offer rich variety of product, the SOK industry collectively will enjoy a greater chance of success in the task of opening wider market, and cultivating the greater demand in the process.

In conclusion, I believe that, if managed properly, open pound SOK fishery in Sitka Sound offers a promising alternative for better utilization of available resources. Even though critics may have legitimate reasons to worry about the over supply, benefits far outweigh the detriments. Perhaps, in consideration to existing permit holders the initial quotas should be set at a moderate level, but with mechanism to increase gradually as more demand is generated.

Thank you for the opportunity to voice my opinion. It is my sincere hope that the new management plan for SOK in Sitka Sound will be formulated with the greatest care for the future benefit of all.

Respectfully yours,

Ed Furumori

From: Ryan Littleton
To:
Subject: Re: Email for Board comment
Date: Tuesday, August 22, 2017 11:06:46 AM

I would like to pull my proposal (number 54). There is another proposal that I will support at the meeting.

Thanks,
Ryan Littleton
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