

ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON FISHERIES

March 14, 2023
10:01 a.m.

MEMBERS PRESENT

Representative Sarah Vance, Chair
Representative Kevin McCabe
Representative CJ McCormick
Representative Ben Carpenter
Representative Craig Johnson
Representative Louise Stutes
Representative Rebecca Himschoot

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

HOUSE BILL NO. 92

"An Act relating to claims against protection and indemnity insurance policies of vessel owners."

- MOVED CSHB 92 (FSH) OUT OF COMMITTEE

PRESENTATION(S): ALASKA'S COMMERCIAL HATCHERIES BY DEPARTMENT OF FISH AND GAME And The ALASKA SALMON AQUACULTURE ALLIANCE.

- HEARD

PREVIOUS COMMITTEE ACTION

BILL: HB 92

SHORT TITLE: FISHERMEN'S FUND: VESSEL OWNER CLAIMS

SPONSOR(S): FISHERIES

03/01/23	(H)	READ THE FIRST TIME - REFERRALS
03/01/23	(H)	FSH, L&C
03/07/23	(H)	FSH AT 10:00 AM GRUENBERG 120
03/07/23	(H)	Heard & Held
03/07/23	(H)	MINUTE (FSH)
03/14/23	(H)	FSH AT 10:00 AM GRUENBERG 120

WITNESS REGISTER

VELMA THOMAS, Administrator

Fishermen's Fund Advisory and Appeals Council
Division of Workers' Compensation
Department of Labor and Workforce Development
Anchorage, Alaska

POSITION STATEMENT: On behalf of the sponsor, House Special Committee on Fisheries, spoke to CSHB 92, Version B.

CHARLES COLLINS, Director
Division of Workers' Compensation
Department of Labor and Workforce Development
Anchorage, Alaska

POSITION STATEMENT: On behalf of the sponsor, House Special Committee on Fisheries, spoke to CSHB 92, Version B.

JERRY MCCUNE, Lobbyist
Cordova District Fishermen United
Cordova, Alaska

POSITION STATEMENT: Provided testimony in support of HB 92.

MIKE WELLS, Executive Director
Valdez Fisheries Development Association
Valdez, Alaska

POSITION STATEMENT: Co-presented a PowerPoint on Alaska's salmon hatcheries.

SCOTT WAGNER, General Manager
Northern Southeast Regional Aquaculture Association
Sitka, Alaska

POSITION STATEMENT: Co-presented a PowerPoint on Alaska's salmon hatcheries.

BILL TEMPLIN, Chief Fisheries Scientist
Division of Commercial Fisheries
Alaska Department of Fish and Game
Anchorage, Alaska

POSITION STATEMENT: Co-presented a PowerPoint, titled "Research Update: Potential Hatchery Effects on Natural Systems."

ACTION NARRATIVE

[10:01:26 AM](#)

CHAIR SARAH VANCE called the House Special Committee on Fisheries Committee meeting to order at 10:01 a.m. Representatives McCabe, Johnson, Stutes, and Vance were present at the call to order. Representatives Carpenter, Himschoot, and McCormick joined as the meeting was in progress.

[10:02:18 AM](#)

The committee took a brief at-ease.

[10:03:34 AM](#)

HB 92-FISHERMEN'S FUND: VESSEL OWNER CLAIMS

[10:03:34 AM](#)

CHAIR VANCE announced that the first order of business would be HOUSE BILL NO. 92, "An Act relating to claims against protection and indemnity insurance policies of vessel owners."

[10:03:52 AM](#)

REPRESENTATIVE MCCABE moved to adopt the proposed committee substitute (CS) for HB 92, Version 33-LS0520\B, Marx, 3/9/23, ("Version B") as a working document.

CHAIR VANCE objected for the purpose of discussion.

[10:04:24 AM](#)

REPRESENTATIVE MCCABE stated that Version B would change the amount [of insurance reimbursements from the Fishermen's Fund ("fund")] from \$10,000 to \$15,000.

CHAIR VANCE added that changes in Version B would increase the claims by the vessel owners and crewmembers to \$15,000. She requested that a representative from the Department of Labor and Workforce Development (DOLWD) speak to the proposed changes.

[10:06:26 AM](#)

VELMA THOMAS, Administrator, Fishermen's Fund Advisory and Appeals Council, Division of Workers' Compensation, Department of Labor and Workforce Development, presented a graph [from a previous presentation, copy included in the committee packet] which showed the worse-case scenario [for the Fishermen's Fund if the reimbursement amount was changed to \$15,000]. She stated that the graph is based on the recent nine-year average. She mentioned the direct effect from the three years of the COVID-19 pandemic on the number of claims received. Concerning the proposed legislation, she expressed uncertainty whether it would present a risk of spending down the fund.

10:07:43 AM

CHARLES COLLINS, Director, Division of Workers' Compensation, Department of Labor and Workforce Development, reminded the committee that in all financial markets past performance is not indicative of future growth or loss. On behalf of DOLWD, he stated that the department has no opinion on the proposed legislation. He added that the Fishermen's Fund Advisory and Appeals Council ("council") has expressed the desire to raise the vessel owner's reimbursement to \$10,000. He added that the crewmember reimbursement has been capped at \$10,000 for quite a few years, so there is a historical view on this. He stated that claims have fallen over the past couple of years; however, there has also been less fishing activity.

10:08:45 AM

MS. THOMAS, in response to a question from Representative Himschoot, noted that in 2010 when the council raised the limit to \$10,000, there was a concern [the fund would be effected negatively]; however, she expressed the belief there is a correlation between the advent of the Affordable Health Care Act and the decrease in claims. She reiterated that this is just her observation and there has been no study. She discussed this idea further.

REPRESENTATIVE HIMSCHOOT questioned whether it would be easy legislatively to reduce the reimbursement amount if the fund drops too low.

CHAIR VANCE clarified that this would be a statutory change. She explained the historical changes of insurance premiums for the fund. She expressed the purpose of the fund is to support the fishermen, and the idea behind the proposed legislation is that costs and premiums have increased. As long as the fund remains stable, she suggested, the idea of raising the amount would be proactive.

MS. THOMAS, in response to a follow-up question, stated that the vessel owner reimbursement was changed to \$5,000 in 2018.

REPRESENTATIVE STUTES voiced trepidation about the additional \$5,000. She pointed out that there were not many claims during the pandemic, along with less participation in the fisheries. She argued that the fund should remain static, as opposed to destabilizing the fund by increasing amounts too much.

[10:12:48 AM](#)

CHAIR VANCE, per the chart, expressed the opinion that the health of the fund remains stable. She questioned the historic number of claims that created the chart's projection.

MS. THOMAS responded that this reflects around 300 claims a year over the past nine years. She continued that before 2014, the claims were smaller, but there were more, around 400 to 600 a year; however, she pointed out that at that time the fund was worth less. She stated that because of the changes, this comparison would be difficult to make.

[10:14:25 AM](#)

CHAIR VANCE suggested that if reimbursements are increased to \$15,000, with these projections, the fund appears stable, and it would be helpful to the fishermen. She questioned, if it had to be reduced statutorily, what the effects on the fishermen would be.

MS. THOMAS expressed uncertainty because the information would be difficult to gather.

MR. COLLINS pointed out that DOLWD and all other stakeholders closely watch the fund. He suggested if there were a problem, it would be addressed quickly. He said the fund is a unique program within the state, and it is taken very seriously. He pointed out that the drop in claims, less participants in the fishery, and the rise in the costs are all factors to consider. He expressed support for the projections and the idea that there would not be a major impact on the growth of the fund. He then suggested, "It only takes one bad claim."

[10:17:55 AM](#)

REPRESENTATIVE HIMSCHOOT questioned whether the legislature would receive an annual update on the growth and management of the fund.

MR. COLLINS said there is nothing in statute to create an annual report; the only updates would be to the council.

REPRESENTATIVE CARPENTER, from conversations with fishermen, he expressed the understanding that there is support for an increase in the reimbursement amounts if the fund's balance is

maintained. Per the projection, he weighed the value of the fund for current fishermen versus the value for future generations. He questioned the amount of money the fund needs. He argued that if the fund grows exponentially, it would become a target for other uses. He suggested that the fund be balanced per the needs of the current generation along with the needs of the future generation, while reducing the risk that the balance becomes a target. He advised that, in consideration of the rising cost of health care, this would be prudent. He further explained his opinion of why the proposed legislation would not put the fund in jeopardy.

[10:21:16 AM](#)

REPRESENTATIVE STUTES expressed the opinion that it is critical fishermen be the recipient of these funds, as opposed to others looking to use the fund because of its size. She also expressed the understanding that if the fund were in jeopardy, this would be quickly addressed.

[10:22:09 AM](#)

CHAIR VANCE removed her objection. There being no further objection, Version B was before the committee.

[10:22:24 AM](#)

CHAIR VANCE opened public testimony.

[10:23:02 AM](#)

JERRY MCCUNE, Lobbyist, Cordova District Fishermen United, expressed support for the proposed legislation. He related that in the past when the reimbursement amount was raised, this was the result of high cost for fishermen. He noted that there is no way to know the number of fishing injuries that will happen in a year. He expressed the opinion that the fund would be able to sustain the rise in reimbursements, and on behalf of Cordova District Fishermen United, he expressed support.

[10:23:50 AM](#)

The committee took a brief at-ease.

[10:24:07 AM](#)

CHAIR VANCE, after ascertaining that there was no one else who wished to testify, closed public testimony.

[10:24:41 AM](#)

REPRESENTATIVE MCCABE moved to report CSHB 92, Version 33-LS0520\B, Marx, 3/9/23, out of committee [with individual recommendations and the accompanying fiscal notes], giving Legislative Legal Services the authority to make all technical and conforming changes. There being no objection, CSHB 92(FSH) was reported out of the House Special Committee on Fisheries.

[10:25:11 AM](#)

The committee took an at-ease from 10:25 a.m. to 10:29 a.m.

Alaska's Commercial Hatcheries

PRESENTATION(S): Alaska's Commercial Hatcheries

[10:29:45 AM](#)

CHAIR VANCE announced that the final order of business would be presentations on Alaska's commercial hatcheries by the Alaska Department of Fish and Game and the Alaska Salmon Aquaculture Alliance.

[10:30:30 AM](#)

MIKE WELLS, Executive Director, Valdez Fisheries Development Association, co-presented a PowerPoint on Alaska's salmon hatcheries [hard copy included in the committee packet]. He began by addressing the history of Alaska's hatchery program, regional hatchery production, and the economic impacts hatcheries make in the state. He moved to slide 2 and pointed out the eight private nonprofit aquaculture associations (PNPs). He added that including the Sitka Sound Science Center this would make nine PNPs. He noted that only some of PNPs are a part of the Alaska Salmon Aquaculture Alliance. He explained that the alliance works to increase the legislature's understanding of hatchery programs. He continued that PNPs operate 26 hatcheries in the state, which collectively address all five species of Pacific salmon. He explained that the hatcheries were created in response to the depressed salmon fisheries in the state.

MR. WELLS read from Slide 3, titled "Alaska's Salmon Hatcheries: A History." He stated that Alaska's hatchery program will be 50

years old next year, and there is still sustainable salmon reproduction, as this was set as the program's original intent. He moved to slide 4 and addressed the core mission of the hatchery program, which is to sustainably enhance all the fisheries while protecting wild stocks. He moved to slide 5, which shows a graph of the recorded statewide salmon harvest beginning in 1900 and going to 1975. He referenced the low abundance years, and the increase with the advent of hatcheries in the 1970s. He added that the wild stocks have also increased since this time.

[10:35:41 AM](#)

MR. WELLS moved to slide 6, which showed the percentage of each species produced by hatcheries statewide for the past year. He explained why the majority of salmon produced by hatcheries are pink and chum salmon, which in part is driven by fiscal stability. In response to a committee question concerning the high number of pink salmon released as opposed to more valuable species, he stated that biologists have reviewed this. He pointed out the stability of pink salmon production; however, he observed that recently there has been decreases in numbers. He suggested that this species, like all species, is subjected to the environment. He continued that hatchery operators might not be able to answer this question fully because of the complexities of the issue.

[10:39:16 AM](#)

SCOTT WAGNER, General Manager, Northern Southeast Regional Aquaculture Association, in response to a committee question concerning the effect Russia and Asia has had on the returns in the Yukon River, deferred the question to the Alaska Department of Fish and Game (ADF&G), as the state is forming a task force to do additional research on the issue. He recognized the decrease in wild salmon stocks; however, he added that the hatchery production, especially for pink and chum salmon in the northern part of the Pacific Ocean, has remained relatively stable since the 1990s. In response to a follow-up question, he stated that this includes international hatchery fish.

[10:42:46 AM](#)

MR. COLLINS continued the presentation on Slide 6, stating that subsistence and personal use comprise most of the noncommercial harvest of hatchery produced sockeye salmon. He noted the high numbers of hatchery coho salmon harvested. He moved to Slide 7

and expressed the opinion that the PNP hatchery programs represent one of the most consistent and successful public-private partnership models in the state's history. He added that these programs produce salmon for every type of harvest at no cost to the state. He added that the revenues generated by the commercial harvest [of hatchery fish] go back into the communities, making it a good return on the state's initial investment.

MR. COLLINS moved to Slide 8, which addressed the regulatory requirements for obtaining a hatchery permit. He stated that this is under the control of ADF&G. He added that the species and amount produced is under this control, along with all other aspects of hatchery operations. He stated that operations are reviewed annually along with an opportunity for public comment.

MR. COLLINS moved to Slide 9, which showed a graph of the statistics on the releases from the four associations in Southcentral Alaska. In response to a committee question, he addressed the fry mortality in hatcheries. He gave the example that the Solomon Gulch Hatchery in Valdez is permitted to take around 270 million pink salmon eggs, of which after fertilization, there is an expected 95 percent survival rate. The marine survival rate is the number of fish that return, and this average is around 6 percent. He stated that this would be around 15 to 16 million fish for this facility. He explained that around 95 percent of the fish do not survive because of variabilities which exist in the natural environment.

[10:48:39 AM](#)

MR. COLLINS continued to slide 10 and addressed the positive economic impacts that hatcheries have on Alaska's economy. He pointed to a report that gave the estimate that annually all PNP programs generate around \$600 million in economic output and provide around 4,700 jobs. Highlighting the associations in Southcentral Alaska, he moved from slide 11 to slide 14 and discussed the Valdez Fisheries Development Association, the Prince William Sound Aquaculture Corporation, the Cook Inlet Aquaculture Association, and the Kodiak Regional Aquaculture Association. He discussed in detail the various hatcheries these entities operate, the communities they support, and the specifics of the salmon returns.

[10:55:05 AM](#)

MR. WAGNER addressed the production of the hatcheries in Southeast Alaska, as seen on Slide 15. He pointed out that in Southeast Alaska there are two regional associations, three regional nonprofit hatcheries, and one federal research hatchery. He stated that in contrast to Southcentral Alaska the primary species of production in Southeast Alaska is chum salmon. He added that the cost effectiveness of producing chum salmon supports the more costly species of sockeye, coho, and king salmon. He discussed the importance of the Pacific Salmon Treaty in relation to hatchery salmon production in Southeast Alaska. He moved to slide 17 and stated that these associations annually produce an economic output of around \$237 million and they create around 2,000 jobs. He moved from slide 18 to slide 21 and reviewed the associations in the Southeast region, which include Northern Southeast Regional Aquaculture Association, Southern Southeast Regional Aquaculture Association, and Douglas Island Pink and Chum, Inc. He discussed in detail the various hatcheries these entities operate, the communities they support, and the specifics of the salmon returns.

MR. WAGNER addressed the up coming year and stated that the best way to support the fisheries is for hatcheries to maintain their cost recovery goals and maintain healthy strong salmon. He stated that the associations support ADF&G's ongoing research. In closing, he stated that Alaska's hatchery program would be celebrating a 50-year anniversary next year. He advised that the hatchery program was created to enhance wild production, which has increased since the program's inception. He discussed the value the program has added and the contributions it has made to the salmon fisheries in the state.

[11:03:23 AM](#)

MR. COLLINS, in response to a committee question, stated that in pink salmon production, these fry have a short-term rearing. They are fed approximately four to five weeks, with food manufactured in Washington State and Canada. In the six weeks of rearing time, the hatchery in Valdez will use around 17,000 pounds of feed. He stated that there are some variables, such as the water temperature. In response to two follow-up questions, he stated that more information about each species of salmon and about the amount of food being consumed will be reported back to the committee, along with the statistics concerning the commercial harvest, in relation to slide 6.

[11:07:29 AM](#)

The committee took an at-ease from 11:07 a.m. to 11:08 a.m.

[11:08:57 AM](#)

CHAIR VANCE introduced the next presentation.

[11:09:39 AM](#)

BILL TEMPLIN, Chief Fisheries Scientist, Division of Commercial Fisheries, Alaska Department of Fish and Game (ADF&G), gave a PowerPoint presentation, titled "Research Update: Potential Hatchery Effects on Natural Systems" [hard copy included in the committee packet.] He advised that the vast amount of information on the subjects of hatchery research and pink salmon competition have been condensed in the presentation. He provided an overview, as seen on slide 2. He began by addressing how the fisheries resources contribute to Alaska's identity, as its preservation is written into the constitution and creates the mission for ADF&G, as seen on Slide 4. He stated that ADF&G's four main tasks are to protect, maintain, improve, and manage the fish, game, and aquatic plant resources in the state. He added that these four must be balanced in an effective manner, with protection being the most important. He moved to the next slide to point out that Alaska's hatchery program must be managed as a balancing act as well. He discussed the history of the fisheries in the state and pointed out the contributing factors to the changes that have taken place. He noted that much of the information had already been presented to the committee in the previous presentation, and he moved to slide 7. He pointed out the period of low production in the salmon fisheries, followed by increases, and then the long stable decades of production.

[11:16:21 AM](#)

MR. TEMPLIN pointed out the beginning of the Alaska Hatchery Research Program (AHRP), which involves the two regions in the state with the largest hatchery production: Southcentral Alaska for pink salmon and Southeast Alaska for chum salmon. He discussed the numbers of pink and chum salmon fry released over the past four decades. On slide 8, he stated that Alaska's hatchery program is structured by policies, processes, plans, and permits and the three elements for monitoring the program are management, fish health, and genetics. Moving to the next slide, he stated that even with this structure, there has been the fear that what has occurred in other hatchery projects would occur in Alaska. He stated that it has been reported that a

large number of hatchery pink and chum salmon have been found in wild streams, which raises the question of whether hatchery fish have a negative effect on wild stocks in Alaska.

MR. TEMPLIN continued that because the studies were performed outside of the state, a possible range of impacts has been reported; however, he suggested that there are difficulties in applying these studies to Alaska's situation. On slide 10, he pointed out that most of these studies were not performed on pink and chum salmon, as these species are difficult to study because they spend very little time in hatcheries or in fresh water. He suggested that the science in Alaska should be used to study this because these other studies have used compromised habitats with nonlocal and small brood stock populations, and these factors effect genetics. He continued that Alaska has different hatchery objectives and practices; therefore, a different, comprehensive set of research was recognized to be needed.

[11:20:54 AM](#)

MR. TEMPLIN noted that the hatchery operators approached ADF&G about developing a plan, as described on slide 11. He pointed out that a panel was assembled to address three questions. The first question concerned the genetic background of the stock structure and whether these genes have moved into the wild populations, as seen on slide 12. He pointed out the results and explained that the result for pink salmon is more "shallow" than the result for chum salmon. He explained the effects in the different spawning years. He pointed out the genetic differences in chum salmon populations from all over the state.

MR. TEMPLIN addressed the second question of the variability of straying in the two regions and districts within the regions. Like other studies, he stated that hatchery fish were found mingling with wild salmon in Alaska. He explained the maps on slide 13 and noted that in the Prince William Sound region the hatchery pink and chum salmon were only found in some of the districts. He noted that the proportion of strays in the Southeast region was more consistent across the region and low across districts.

MR. TEMPLIN stated that the last question concerned the impact on salmon fitness. He added that this question is more complex. He pointed out the plots on the graph on slide 14, which represent a set of samples, with different strains denoted. He further explained the plotting system. He stated that the takeaway from this is that hatchery fish have a lower fitness,

or productivity, in natural streams where they are about half as productive. He stated that the results on chum salmon would be available in 2024, as no analysis has been done yet. On the next slide, he explained the validity and reliability of the results, and where the results have been published.

[11:29:09 AM](#)

MR. TEMPLIN, in response to a committee question concerning why hatcheries mostly rear pink and chum salmon, stated that one of the most common explanations is these salmon have a short fresh water life cycle; therefore, they require less maintenance. He added that Prince William Sound is not as productive for chum salmon, while the opposite is true for Southeast Alaska. In addition, he stated that the Southeast Alaska pink salmon run is large enough to not need a hatchery for support. In response to a follow-up question on whether there is a difference in salmon returning to mainland or island streams, he stated that patterns found had more to do with which streams were chosen to be represented and the proximity of the stream to a hatchery. He stated that he would note the question for future study.

MR. TEMPLIN, in response to a question concerning the effect of straying on wild stocks, pointed out the different proportions of straying. He stated that there are several reasons for this. One of the reasons is where streams are located in terms of where the fish are coming in from the ocean. In addition, a factor is the size of the return in the particular stream. He stated that the effects are beginning to be understood, and this would determine the management of fisheries in terms of escapement. He stated that the question of the effects is still being studied.

[11:34:15 AM](#)

MR. TEMPLIN continued to Slide 16 and addressed the application of the science, of which he advised is complex. He stated that AHRP is supplying scientifically credible information on the interactions between hatchery and wild salmon; however, because of the complexities, more than biology is needed to make decisions. He pointed out that the social, economic, and cultural aspects need to be considered when using the science, as there would need to be a bridge between these aspects in order to make decisions. To address this, he moved to slide 17 and pointed out questions not looked at by AHRP. He addressed the department's assessment of risks concerning what was learned from the study, and he pointed out the next steps to be taken,

as seen on slide 18. He explained that this research has been done in order to use the analyses to inform resource management decisions.

MR. TEMPLIN moved to slide 19 and pointed out the questions that would need to be asked in order to have an appropriate decision-making process. He stated that these questions would help the department move from the science learned to the policy needed. He stated that the first question concerns observation of whether an event is occurring. The next question concerns how often and to what extent the event is occurring. These two questions are answered using scientific measurement, with the end user defining the effect, as this is not always obvious, he advised. He stated that the next question is whether there is a harmful effect, and this would need to be answered by a human derived standard; in other words, the definition of harm would need to be determined. He stated that the next question is in relation to whether addressing the harm would cost more than the benefit. He stated that this question is not informed by scientific results, but rather by human activity, such as values, definitions, negotiations, and risk assessments.

[11:40:49 AM](#)

MR. TEMPLIN moved to the final slides which addressed pink salmon and competition at sea. He explained the different effects of this type of study and continued to an example. He suggested four explanations for the correlation between two example pink salmon runs; unfortunately, he explained the correlation cannot be determined from a data set alone, as establishing causal relationships is difficult. As seen on slide 21, he advised that the best results would come from controlled studies; however, biological situations are not amenable to controlled studies. To be able to determine causal relationships better, he stated that the correlation between the two example runs must have high evidence found consistently across multiple situations with no competing explanations. He concluded that the correlation would need to be consistent with strong explanation supported by experiment. To understand the correlation between the two example pink salmon runs, the following would need to be determined: diet overlap and shifts, the comparison of each run's survival trends, the comparison of competitor abundance with growth patterns, and the comparison of competitor abundance with age and maturity. He moved to slide 23 and slide 24 and addressed how the previous four correlations are debated in scientific communities. He discussed the details of the arguments and related these to international debates. He

suggested that the question of pink salmon competition at sea has not been settled and making changes based on uncertain or preliminary assertions can be harmful to the resource, as well as to Alaska. He advised that the department acts within the scope of available resources and in a manner that supports its mission. On slide 25, he pointed to the list of the five activities and approaches, which are being implemented to advance the science around competition and the marine ecology of salmon. He discussed each of these. He concluded with an offer to receive any questions at any time.

[11:53:14 AM](#)

MR. TEMPLIN, in response to a committee question concerning the past data which has informed the past policy decisions, stated when speaking about "productivity," he was specifically referring to the productivity of natural systems in the presence of hatchery and wild fish. He continued that ADF&G's assessment of productivity is taken into account over long periods of time, by multiple brood years, within the escapement goal system. This helps the department understand whether targets are being met. On a larger scope, productivity uses harvest and escapement information, and other similar information to understand escapement.

MR. TEMPLIN, in response to a question concerning the food in the sea necessary to feed one pink salmon, deferred to the upcoming committee meeting, where Dr. Katie Howard would be able to answer. He explained that the food web and ecosystem is very complex in the North Pacific and Bristol Bay. He stated that salmon are a small consumer compared to pollack, herring, and other species. He said it would be difficult to measure how much food is necessary to feed fish in the ocean, as it needs to be in context of other consumers. He suggested that trends could reveal some answers.

[11:58:25 AM](#)

CHAIR VANCE summed up the discussion and stated that, as policy makers, the committee is concerned with what could be done today, and here lies the problem. She explained the purpose of a scientist is very different from that of a legislator.

[11:59:26 AM](#)

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Fisheries meeting was adjourned at 11:59 a.m.