ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON FISHERIES
February 15, 2022
10:02 a.m.

MEMBERS PRESENT

Representative Geran Tarr, Chair
Representative Louise Stutes, Vice Chair
Representative Jonathan Kreiss-Tomkins
Representative Andi Story
Representative Dan Ortiz
Representative Sarah Vance
Representative Kevin McCabe

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

PRESENTATION: DISASTER DECLARATIONS FOR ALASKA FISHERIES BY DEPUTY COMMISSIONER RACHEL BAKER AND DR. KATIE HOWARD~ FISHERIES SCIENTIST~ ALASKA DEPARTMENT OF FISH AND GAME

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

RACHEL BAKER, Deputy Commissioner
Alaska Department of Fish and Game
Juneau, Alaska
POSITION STATEMENT: Presented an update on Disaster Declarations for Alaska Fisheries.

DOUG VINCENT-LANG, Commissioner
Department of Fish and Game
Juneau, Alaska
POSITION STATEMENT: Provided information during the presentation on fisheries disasters.

DR. KATIE HOWARD, Fisheries Scientist
Alaska Department of Fish and Game
Anchorage, Alaska
POSITION STATEMENT: Presented the 2021 Salmon Stock Status Update.

ACTION NARRATIVE

10:02:24 AM

CHAIR GERAN TARR called the House Special Committee on Fisheries meeting to order at 10:02 a.m. Representatives Story, Ortiz, Vance, Kreiss-Tomkins, and Tarr were present at the call to order. Representatives McCabe and Stutes arrived as the meeting was in progress.

PRESENTATION: Disaster Declarations for Alaska Fisheries by Deputy Commissioner Rachel Baker and Dr. Katie Howard, Fisheries Scientist, Alaska Department of Fish and Game

10:02:43 AM

CHAIR TARR announced that the only order of business would be Presentation: Disaster Declarations for Alaska Fisheries by Deputy Commissioner Rachel Baker and Dr. Katie Howard, Fisheries Scientist, Alaska Department of Fish and Game.

10:04:40 AM

RACHEL BAKER, Deputy Commissioner, Alaska Department of Fish and Game, presented to the House Special Committee on Fisheries on disaster declarations for Alaska fisheries. She explained that her role within the Alaska Department of Fish & Game (ADF&G) is related to state and federal fisheries coordination primarily for groundfish, crab, halibut, and scallop fisheries in conjunction with the North Pacific Fishery Management Council (NPFMC) and the National Marine Fisheries Service (NMFS). She noted that the ADF&G commissioner has a permanent voting seat on the NPFMC, and she serves as the primary alternate in his absence. She reminded the committee that the State of Alaska manages fisheries within zero to three miles offshore, and the federal government manages fisheries from three to two hundred miles offshore.

MS. BAKER stated that the matter of disaster declarations was particularly relevant to the State of Alaska since several disasters had been declared by the U. S. Secretary of Commerce.

MS. BAKER stated that fisheries are important to the state, and natural variations occur with the amounts of fish harvested and associated economic activity. She referred to the presentation entitled, "ADFG Fishery Disaster Presentation 2.15.22.pdf," [included in the committee packet] and drew attention to slide 2, entitled, "What is a fishery Disaster," and summarized the following bulleted points, which read as follows [original punctuation provided]:

- Fisheries are an essential part of coastal economies.
- Fisheries are dependent upon the productivity of the environment.
- Fisheries are subject to many factors, natural and manmade, which can cause harm or failure.
- Fishery disaster declarations are a means to financially assist individuals and communities experiencing such loss.
- Fishery disaster funds are also used for research to determine the underlying causes of the disaster and prevent future disasters in the fishery.

MS. BAKER stated that two federal statutes provide the authority and requirements for fisheries disaster declarations, and she drew attention to slide 3, entitled, "Magnuson-Stevens & Interjurisdictional Fisheries Acts," and summarized the following bulleted points, which read as follows [original punctuation provided]:

- The Magnuson-Stevens Fishery Conservation and Management Act (MSA) is the primary U.S. statute governing management of fisheries in Alaska's Exclusive Economic Zone, which is 3-200 miles off the coast (EEZ).
- The Interjurisdictional Fisheries Act (IFA) provides for grants by the Secretary of Commerce to States for management of interjurisdictional fishery resources.
- The Secretary of Commerce is authorized under both Acts to provide assistance.
- Recent Alaska fishery disaster requests were found to meet the requirements for fisheries disasters under both the MSA and the IFA.

MS. BAKER noted that all Alaska fisheries, not solely those fisheries that are federally managed, are eligible for

assistance under the disaster declaration process. She stated that the most recent [Alaska] fisheries disaster declarations were determined to have met the definition of disaster under both the MSA and the IFA.

10:09:42 AM

MS. BAKER explained that an affected fishery participant, a local government, or a tribal entity will initiate the request with a letter to the ADF&G. ADF&G will then conduct a data assessment to determine the eligibility of a fishery under the MSA and the IFA. She then drew attention to slide 4, entitled, "Step 1: Initiating the Request," and summarized the following bulleted points, which read as follows [original punctuation provided]:

- Pursuant to the MSA and the IFA, a Governor of an affected state, or an elected or politically appointed representative of an affected fishing community may submit a request to the Secretary of Commerce.
- The Secretary may also initiate a review at his or her own discretion.
- When a request is received, the Secretary will provide an interim response to the requestor.

MS. BAKER explained that there exist three requirements to make an affirmative declaration of disaster determination: the existence of a fisheries resource disaster, as defined by the MSA or the IFA; the cause of the disaster must be for an allowable cause; and [evidence of negative] economic impact that has stemmed from the disaster. She then drew attention to slide 5, entitled, "Step 2: Evaluating the Request," and summarized the following bulleted points, which read as follows [original punctuation provided]:

- The Secretary will first review the best scientific information available.
- The State of Alaska works with the National Marine Fisheries Service (NMFS) to provide all pertinent data.
- Review may include fishery characteristics, stock assessment, estimates of mortality, and overall effects in order to assess the existence of a fishery resource disaster and its causes.

MS. BAKER elaborated on the allowable cause requirement and drew attention to slide 6, entitled, "Evaluating the Request:

Allowable Causes," and summarized the following bulleted points, which read as follows [original punctuation provided]:

> Allowable causes under the MSA include:
> - Natural causes
> - Undetermined causes
> - Man-made causes beyond the control of fishery managers to mitigate through conservation and management measures, including regulatory restrictions imposed to protect human health or the marine environment.
>
> Allowable causes under the IFA include:
> - Natural causes
> - Undetermined causes

MS. BAKER noted that the recent Alaska fisheries disasters had been determined to have occurred due to natural causes. She explained that, while no exact natural cause for the disasters had been confirmed, the department found that marine heat waves and warmer ocean conditions in the Gulf of Alaska and the Bering Sea had existed since 2014 and had lasted until 2016 or 2017, based on research.

10:14:09 AM

REPRESENTATIVE ORTIZ asked whether the term "undetermined causes" would be further defined during the presentation.

MS. BAKER referred to a 2018 Gulf of Alaska pacific cod fishery disaster in which undetermined causes had existed and which had been approved. She stated that some of the natural causes that had been cited in the request included ocean warming conditions. She stated that the disaster determination approval letters were brief in content. She stated that recent disaster declarations had been approved due to natural conditions, including ocean warming. She stated that it was unclear what difference existed between disasters that had been declared under "natural causes" and those under "undetermined causes."

10:16:28 AM

MS. BAKER elaborated on the third requirement, the [evidence of negative] economic impact that has stemmed from the disaster, as determined by the NMFS. She noted that the criteria were based on data that shared overlap with the meeting of the other requirements and was mostly scientific in nature. She stated

that data that may be used could include decline in [fish] landings, and occasionally net revenue by vessel data. She drew attention to slide 7, entitled, "Consideration of Commercial Fishery Failure or Serious Disruption Affecting Future Production," and summarized the following bulleted points, which read as follows [original punctuation provided]:

> The focus here is on available socio-cultural and economic information to determine the existence of one of the above events. Information may include:
> - Fishery characteristics
> - Economic impact
> - Number of participants involved
> - Length of time access to resource is restricted
> - Documented decline of the resource

MS. BAKER drew attention to slide 8, entitled, "Determination of a Commercial Fishery Failure," and summarized the following bulleted points, which read as follows [original punctuation provided]:

> If review of the economic information shows that a significant number of participants have suffered revenue declines that greatly affect or materially damage their businesses, the commercial fishery will be deemed to have failed.
> The calculations are based on the loss of 12-month revenue compared to average annual revenue in the most recent 5-year period.
> The following thresholds are applied when making this determination:
> - Revenue losses greater than 80 percent will result in a determination of a failure.
> - Revenue losses between 35 percent and 80 percent are evaluated further.
> - Revenue losses of less than 35 percent are generally not eligible for determination of a failure.

MS. BAKER stated that there had been fisheries disasters declared in Alaska that had involved less than 35 percent revenue loss. She stated that this demonstrated that disaster declarations are evaluated on a case-by-case basis, and that subsistence fisheries including bartering and trading impacts were important in Alaska and would also be taken into consideration.

MS. BAKER then drew attention to slide 9, entitled, "Determination of Serious Disruption Affecting Future Production," and summarized the following bulleted points, which read as follows [original punctuation provided]:

- Scientific information may indicate a sudden and unexpected precipitous decrease in harvestable biomass or spawning stock, size which causes a significant number of persons to lose access to the fishery for a substantial period of time, in a specific area.
- The same percentage thresholds used to evaluate revenue losses for a commercial fishery failure are applied in making this determination.
- Calculation based on the estimated decrease in harvestable biomass or spawning stock size of the fish targeted by the fishery compared to the most recent 5-year period.

10:21:35 AM

MS. BAKER then drew attention to slide 10, entitled, "Step 3: Making a Determination," and summarized the following bulleted points, which read as follows [original punctuation provided]:

- The Secretary will determine whether the evidence supports a positive determination.
- The requestor is notified of the positive determination.
- Congress may then appropriate funds for fishery disaster relief.
- There is no standing fund for disaster relief

MS. BAKER explained that a determination may take a year or more due to NMFS requirements that final revenue data be reported. She further explained that, in the example of a disaster declaration request in a particular year, final data for commercial fishing revenue data is available during the fall of the previous year's fishery, if it had been opened. She added that some cases exist and ADF&G coordinates with NMFS in which a disaster declaration request had been made when a fishery does not open at all, and revised final revenue data is not anticipated.

MS. BAKER explained that congress may appropriate disaster funds once a declaration had been approved by the secretary. She explained that the most recent approved disaster declarations

were currently awaiting congressional appropriation of relief funds.

10:24:26 AM

REPRESENTATIVE STORY asked whether, when a fishery remains closed, whether the federal government can make a determination with the knowledge that no additional revenue would be reported.

MS. BAKER stated that there had been no official determination; however, state and federal officials understand [that no additional revenue would be reported] as in the case of the 2021 Yukon River salmon fishery [disaster declaration.] She noted that the request had been reviewed and approved relatively quickly and prior to the fall following the season in question.

10:25:49 AM

REPRESENTATIVE ORTIZ asked whether there had been an instance in which congress had received an approved disaster declaration and elected not to appropriate relief funds.

MS. BAKER offered to research Representative Ortiz's question and follow up with an answer.

10:26:26 AM

CHAIR TARR asked whether, to Ms. Baker's knowledge, it had been considered that [congress] create a disaster relief fund so that appropriation legislation not be required.

MS. BAKER answered that, while she had familiarity with the question as it had been raised, she was unable to answer definitively, and offered that Alaska's congressional delegation could be asked.

10:27:28 AM

REPRESENTATIVE STUTES asked whether there exists any reason that the Pacific States Marine Fisheries Commission (PSMFC) is the entity to facilitate the distribution the relief funds because Alaska is historically the last in the country to receive appropriated disaster relief funds.

MS. BAKER answered that ADF&G shares the same frustrations with the delays associated with the processes managed by the PSMFC. She stated that ADF&G does not have adequate resources and

expertise to handle the administrative processes and funds distribution in compliance with federal requirements. She added that PSFMC has a working relationship with the NMFS to facilitate the federal grant and disbursement processes. She stated that there exist ongoing attempts to achieve a balance between getting funds to affected individuals as quickly as possible and maintaining compliance with the federal program requirements. She added that there exist limited options for grants administrators and, while PSMFC remains one option, the department is seeking to identify alternative administrative entities to distribute funds more efficiently for affected Alaskans.

REPRESENTATIVE STUTES asked whether PSMFC was a private entity who receives a percentage of the revenue that it distributes.

MS. BAKER answered that PSMFC is one of three interstate fisheries commissions and she stated she was unsure of what legislation had created such commissions; however, she did confirm reference to the commissions in the MSA and, to her understanding, it was not a private entity but a quasi-governmental entity. She further added that the commissions carry out tasks such as fisheries management data processing and electronic monitoring in addition to handling the distribution of disaster relief funds. She answered that the commissions do recover overhead [costs] during the administration of disaster relief funds distribution and she had been informed that the rates charged were relatively low when charged to other government agencies.

10:31:54 AM

REPRESENTATIVE KREISS-TOMKINS echoed the concerns raised regarding the administrative ability and efficiency of the PSMFC.

MS. BAKER next drew attention to slide 11, entitled, "Step 4: Preparing the Spend Plan," and summarized the following bulleted points, which read as follows [original punctuation provided]:

- Once an allocation is made for a particular fishery disaster the Department of Fish and Game works closely with affected stakeholders and requestors to develop a spend plan.
- The spend plan forms the basis of the federal grant.
- The spend plan should, to the extent practicable, address the cause of the disaster.

MS. BAKER explained that the development of the spend plan and the disaster appropriation have two purposes which are to assist and mitigate impacts to fishery participants, and to reduce the likelihood of future disasters where possible. She stated that it had been a priority of ADF&G Commissioner Vincent-Lang to include dedicated research funding within the spend plans. She continued by drawing attention to slide 12, entitled, "Step 5: Spend Plan Approval," and summarized the following bulleted points, which read as follows [original punctuation provided]:

> Recent Alaska fishery disaster spend plans have provided direct payments to fishery participants and funds for research.
> • The Department of Fish and Game submits the final spend plan which must be approved by NMFS, NOAA, the Department of Commerce and the White House Office of Management and Budget.
> • Once approval is received the grant administrator can begin drafting applications, open the application period, and perform final audit before payments are made.

MS. BAKER added that there exist no timelines in place for the approvals described, and that delays in processing have been identified during the spend plan approval phase.

10:34:41 AM

MS. BAKER, in closing the presentation, drew attention to slide 13 entitled, "Alaska Fishery Disasters" on which a chart depicted the current fisheries disaster declarations in process. She summarized the overview and stated that readers of the chart should ascertain that the process takes approximately one year to achieve a determination of disaster. She noted that the funds distribution in process depicted on the chart from 2018 represents a typical timeline for the process.

10:38:04 AM

REPRESENTATIVE ORTIZ asked how long the disaster program had been in existence.

MS. BAKER answered that Alaska had been engaged in the disaster declaration program dating back to at least 1995. She noted that the MSA was enacted in 1979, but that she was unsure

whether the disaster program had been included in the original MSA.

REPRESENTATIVE ORTIZ asked whether the frequency and volume of disasters had existed throughout the program's known history.

MS. BAKER stated that, since 2008 – 2009, the volume and frequency of disasters had increased throughout the U.S.

REPRESENTATIVE ORTIZ asked whether the increase in volume of disasters was cause for concern for management to the maximum sustainable yield, and concern for the economic and ecological impacts from disasters.

MS. BAKER stated that it was unclear whether the increase in disaster declarations was due to more disasters occurring or due to more utilization of the federal disaster relief program. She added that the governor's request for declaration of disaster dated March 8, 2021, had acknowledged that warming temperatures had been recorded in the Bering Sea and Gulf of Alaska which may be cause for concern.

10:41:41 AM

REPRESENTATIVE ORTIZ asked whether there had been any argument made that research and prevention could be more beneficial and cost effective to prevent disasters from occurring.

MS. BAKER stated that she had heard indirectly of suggestions such as Representative Ortiz suggested were being discussed and she postulated that there may be pending federal legislation that might address it.

10:43:27 AM

DOUG VINCENT-LANG, Commissioner, Department of Fish and Game, added that oceanographic condition changes and that some resources from disaster relief funds were dedicated to research and data collection to determine the causes of disasters. He stated that there were budget requests before the legislature to fund marine science programs as well.

10:44:50 AM

CHAIR TARR asked how the budget for research allocations from disaster funds were determined and what level of autonomy the department has in that determination.

MR. VINCENT-LANG explained that, once a disaster has been declared, a spend plan is developed that includes public input and which is subject to NMFS review.

REPRESENTATIVE VANCE expressed that she had the same question regarding research in spend plans as had been posed by Chair Tarr and encouraged transparency for fishers affected by disasters.

CHAIR TARR asked whether there had been any discussion regarding a state disaster fund for fisheries such as exists for scholarships and fire suppression and whether that might be possible.

MR. VINCENT-LANG postulated that establishment of a state disaster fund program may be possible, and it would necessarily consist of federal disaster funds.

10:48:40 AM

REPRESENTATIVE VANCE asked whether it could be possible to manage distribution of federal disaster funds within Alaska government to expedite the distribution of funds more effectively than had been taking place with PSMFC.

MR. VINCENT-LANG stated that, should PSMFC remain the administrator of disaster funds for Alaska, additional PSMFC resources be devoted to streamline its process. He added that there had been some inquiry on whether it would be appropriate for the Department of Commerce, Community & Economic Development to be the administrator and the matter was still under discussion.

REPRESENTATIVE STORY asked the reason for the six-month public process for the development of the spend plan and whether that process could be expedited.

MR. VINCENT-LANG noted that disaster declarations may be made while fishing season is in progress and stated that attempts are made to balance public input with expediency. He stated his belief that public input is important to the process despite the department being allowed to develop a spend plan internally, without public input

CHAIR TARR referred to slide 13 and asked whether spend plans were available online.

MS. BAKER answered yes and offered to follow up with the committee.

10:53:00 AM

REPRESENTATIVE KREISS-TOMKINS asked for further explanation of Section 312 and the review process, as it had been raised as an area of concern with the process.

MS. BAKER explained that Section 312 of the MSA establishes the requirements to qualify for a declaration of fishery disaster.

REPRESENTATIVE STUTES expressed her hope that in future disaster situations that ADF&G would advocate for finding an agency other than the PSMFC to administer the funding.

CHAIR TARR directed attention to the next presentation [included in the committee packet] entitled, "ADFG 2021 Salmon Stock Status Update 2.15.22.pdf," and invited the next presenter to begin.

10:56:21 AM

DR. KATIE HOWARD, Fisheries Scientist, Alaska Department of Fish and Game, drew attention to slide 2 of the presentation and noted that 2021 had produced record salmon runs and shared the information on slide 3, which read as follows [original punctuation provided]:

> Reports of salmon getting smaller and/or younger as returning adults
> • Kuskokwim River – Historical Chinook salmon runs mostly age 5 and 6, but now seeing runs mostly aged 4 and 5
> • Norton Sound – record low size for chum and coho
> • Yukon River – record low size of chum

DR. HOWARD then shared the content on slide 4, which read [original punctuation provided]:

> 2021 Chinook Salmon
> • Below average to poor statewide

• A few stocks have shown improvements in escapement from prior years – Unuk, Situk, Chilkat rivers in SEAK

DR. HOWARD then shared the content on slide 5, which read [original punctuation provided]:

2021 Chum Salmon
• Average to poor runs statewide
• Record low runs in Western Alaska
• Below average runs in SEAK and Kodiak
• Above average runs South Alaska Peninsula

DR. HOWARD then shared the content on slide 6, which read [original punctuation provided]:

2021 Coho Salmon
• Below average to poor for much of state
• Particularly poor in Western Alaska
• Western Gulf of Alaska runs were late and above average

DR. HOWARD then shared the content on slide 7, which read [original punctuation provided]:

2021 Pink Salmon
• Generally good abundance statewide
• SEAK commercial pink harvest exceeded preseason forecast
• 3rd largest harvest of odd year run in PWS
• Western Gulf of Alaska and Bering Sea commercial harvests average to above average

DR. HOWARD then shared the content on slide 8, which read [original punctuation provided]:

2021 Sockeye Salmon
• Generally good abundance statewide
• Average commercial harvests in SEAK
• Above average commercial harvests in central and western Gulf of Alaska
• Above average to record harvests in Western Alaska
• Chignik stocks weak

DR. HOWARD drew attention to slide 9 and explained that the graph depicted escapement goals for all species statewide from 2001-2021.

DR. HOWARD then shared the content on slide 10, which read [original punctuation provided]:

Salmon Ocean Ecology Program (SOEP)
Who We Are:
• Initiated over 1 year ago
• Statewide Fisheries Scientist, AYK Marine Biologist, Statewide Fishery Biologist 2
What We Do:
• Understand the marine life of Alaskan salmon
• Use this information to assist fishery management decision making
• Answer pressing questions about what drives salmon population dynamics
How We Do It:
• Build capacity and collaborations
• Support marine research programs
• Work to fill knowledge gaps

DR. HOWARD explained that the SOEP increased the research capacity at the department to focus on marine salmon issues and that the program works with other agencies including NOAA, the United States Geological Service (USGS), non-profit organizations, and international organizations to understand the marine life of Alaskan salmon.

CHAIR TARR asked whether Dr. Howard was the statewide fishery biologist and asked what the "AYK" acronym represented.

DR. HOWARD answered that she was the statewide biologist of the program, and that the acronym was "Arctic Yukon Kuskokwim" and was a research region included in the program.

11:03:44 AM

DR. HOWARD then shared the content on slide 11, entitled, "How We Do It," and explained that the contents of the slide provide information on two major research projects to understand the marine life of salmon stocks with a focus on the juvenile life stage. She noted that both surveys provide new information on early marine ecology of juvenile salmon and vital ecosystem data. She then read from the slide as follows [original punctuation provided]:

> How We Do It
> Northern Bering Sea Ecosystem Survey
> (NBS; NOAA and ADF&G):
> • Assesses juvenile Yukon River and Norton Sound salmon stocks since 2002.
> • Forecast Yukon River Chinook salmon (3- years) and pink salmon (next year). Efforts underway to create similar forecasts for chum salmon.
> Southeast Alaska Ecosystem Monitoring
> (SECM; NOAA & ADF&G)
> • Assesses juvenile Southeast Alaska salmon stocks since 1997.
> • Forecast SEAK pink salmon. Efforts underway to create similar forecasts for other species.

DR. HOWARD drew attention to slide 12 and explained that both surveys accomplish three goals: long-term monitoring of Alaskan salmon at sea, identify survival bottlenecks that affect future run sizes, and forecast run sizes from 1 to 3 years in the future. She stated that there exists clear evidence that, for chinook salmon in the Northern Bering Sea and for pink salmon in the Northern Bering Sea and in Southeast, all factors affecting salmon positively or negatively occurs very early in its life cycle, prior to its first winter at sea.

11:06:20 AM

DR. HOWARD shared that other projects include a Southern Bering Sea survey of juvenile chinook from the Kuskokwim River in Bristol Bay and that additional funding was being sought to continue that work. She stated that salmon sharks, known salmon

predators, were caught during survey work, and were fitted with satellite and data archival tags to assess migration patterns.

DR. HOWARD directed attention to slide 14 and explained that it contained information on new collaborations for which grant funding was being sought to fill information gaps of the life of salmon at sea. She stated that partner agencies were experts in marine food webs and how species interact to further understand the role of competition [for food sources] and changing stocks. She explained that the Yukon River Drainage Fisheries Association (YRDFA) was aiding in the engagement of local people with historical knowledge of the area. She added that salmon bone studies were being conducted and were more cost-effective in supplying some of the data than the larger surveys.

DR. HOWARD drew attention to slide 15 and noted that there was an FY 22 supplemental capital funding request to continue the program.

11:10:12 AM

CHAIR TARR referred to slide 14 and asked whether the vessels depicted on the bottom left of the slide were the vessels participating in the International Year of the Salmon.

DR. HOWARD answered that they are the vessels engaged in that research and she was to travel to join the research group in a matter of days.

CHAIR TARR asked Dr. Howard to share what types of activities she would be doing at sea.

DR. HOWARD shared that the survey was an ecosystem survey to understand where salmon are, the condition of the salmon, how salmon overlap with other species across the whole North Pacific. She explained that samples will be collected for laboratory analysis to determine which genetic stocks are found in what location(s), odelith studies, and overall health of the North Pacific Ocean analyses.

REPRESENTATIVE STUTES asked whether the research would be working in collaboration with some Russian [research] vessels.

DR. HOWARD affirmed that Russia was involved in the research, along with Canada, other U. S. states, Japan, and the Republic of Korea.

11:13:29 AM

REPRESENTATIVE ORTIZ asked for additional information on new findings regarding the first year of salmon survivability.

DR. HOWARD stated that there exists a clear indication that run size is correlated with the first year of life for chinook salmon from the Yukon River and pink salmon from the North Bering Sea and Southeast. She stated that western Alaska chum salmon had experienced a precipitous decline beginning in 2020 and [similar declines] had been observed in Japan and Canada as well. She hypothesized that ocean heat waves in 2014 – 2016 and in 2019 may have contributed to the decline and was among the factors in the ongoing research that is being examined.

CHAIR TARR noted that, as depicted in the presentation, chinook, chum and coho species had had lower performance while sockeye and pink had performed better. She asked whether the trends are reflected in the research that is being conducted.

DR. HOWARD she agreed with the correlation suggested by Chair Tarr and added that factors exist consistently and occurring over a broad [geographic] area.

11:18:35 AM

CHAIR TARR asked whether Dr. Howard held the expert opinion that there may exist a "perfect storm" set of circumstances, and whether she could summarize her opinion.

DR. HOWARD offered that the recent marine heat waves were different than those recorded in the past. She stated that the intensity, duration, and large geographic occurrence resulting in the effects of heatwaves carrying on longer, often for years. She noted that, though no heatwave was currently observed, some of the effects of the previous heatwaves were still present.

CHAIR TARR asked whether, in addition to the capital supplemental request, there was other information that the presenters wished to share with the committee.

MR. VINCENT-LANG answered that, in addition to the supplemental request, there were other requests that would fund genetic research and research that would take place in the Arctic Ocean.

11:23:12 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Fisheries meeting was adjourned at 11:23 a.m.