

**ALASKA STATE LEGISLATURE  
HOUSE SPECIAL COMMITTEE ON FISHERIES**

February 7, 2013

10:07 a.m.

**MEMBERS PRESENT**

Representative Paul Seaton, Chair  
Representative Lynn Gattis  
Representative Kurt Olson  
Representative Jonathan Kreiss-Tomkins

**MEMBERS ABSENT**

Representative Eric Feige  
Representative Bob Herron  
Representative Craig Johnson

**COMMITTEE CALENDAR**

PRESENTATION: WORLD AND ALASKA SALMON MARKETS

- HEARD

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

GUNNAR KNAPP, Interim Director and Professor of Economics  
Institute of Social and Economic Research (ISER)  
University of Alaska Anchorage (UAA)  
Anchorage, Alaska

**POSITION STATEMENT:** Provided the overview of Trends in Alaska and World Salmon Markets.

**ACTION NARRATIVE**

[10:07:43 AM](#)

**CHAIR PAUL SEATON** called the House Special Committee on Fisheries meeting to order at 10:07 a.m. Present at the call to order were Representatives were Seaton, Gattis, Olson, and Kreiss-Tomkins.

**Presentation: World and Alaska Salmon Markets**

10:08:06 AM

CHAIR SEATON announced that the only order of business would be a presentation on world and Alaska salmon markets.

10:09:08 AM

GUNNAR KNAPP, Interim Director and Professor of Economics, Institute of Social and Economic Research (ISER), University of Alaska Anchorage (UAA), introduced today's overview as a compilation of two presentations: April 2012 given in Kodiak to the Alaska Department of Fish & Game (ADF&G), Division of Commercial Fisheries; and January 2013, given in Santa Monica, California, to the Global Seafoods Markets Conference, sponsored by the National Fisheries Institute (NFI).

10:12:50 AM

MR. KNAPP began with the trends in Alaskan markets, stating that salmon harvests have fluctuated over the decades, but in general have remained strong. The resources are in relatively good condition, despite reports of low catches in 2012. Interesting trends are taking place, regarding production, such as frozen pink salmon superseding canned. The diversification of the frozen salmon market is causing the U.S. to export less to Japan, export more to the European Union (EU) and China. China exports are primarily for reprocessing into value-added products which are re-exported to the U.S. and EU markets. Also, he said domestic salmon consumption has increased.

10:14:52 AM

CHAIR SEATON inquired about the shift in the Pink salmon industry and asked if it primarily represents a relocation of canning operations from Alaska to China.

MR. KNAPP said much of the pink catch is immediately frozen and delivered to China for further processing not only into canned items but into a wide variety of value added products. The salmon industry went through an economic decline in the early 1990s, but has significantly rebounded and become stronger since 2002. Alaska's salmon industry has rebounded to a stronger level and wholesale prices have increased dramatically. Both the fishermen and processors have shared in the rebound and the permit prices have increased commensurately. The driving force

in the world salmon market has been the enormous growth in farmed salmon production. Farmed Atlantic salmon support two thirds of the global market demand. The growth in production is due to an enormous increase in demand created by new markets that have emerged in countries such as Russia, Eastern Europe and Brazil. The dramatic demand for supply caused farmed salmon prices to strengthen during the period of 2002-2010 and spike during 2008-2010; however, a price crash followed the spike years when major disease problems befell the Chilean salmon farms. The Chilean production is recovering, but uncertainty in world farmed salmon markets persists and what happens regarding production will affect prices. Consequently, what happens in the market place for farmed salmon corresponds directly to what occurs in the wild salmon market. This is especially true where the two markets compete directly, as in the frozen headed and gutted (H&G) product, frozen fillets, and fresh salmon sales.

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MR. KNAPP directed attention to the committee packet handout titled "Trends in Alaska and World Salmon Markets," dated February 7, 2013, and explained the bar graph labeled "Alaska Salmon Harvest Volume," which compares, in millions of pounds, the five species of salmon harvested from 1980-2012. The three species of significance are sockeye, pink, and chum. Illustrating the same information in a line graph to highlight the species contributions, he said the pink salmon harvest varies dramatically statewide and by region. The sockeye have fallen off from the very high harvest of the early 1990s, rebounded slightly, and are expected to fall again, as forecast by the state's Bristol Bay projections. Chum harvests have remained consistent and strong. He pointed out that hatcheries are major contributors to pink and chum production. He moved on to data from the Commercial Operator Annual Reports (COARs), pointing out that the data for 2012 are not yet compiled. The bar graph labeled "Alaska Salmon Production: Sockeye," illustrates the distribution of product between canned, fresh, frozen, and other, with the most important being frozen. The data graphed by market share illustrates how the frozen and fresh products have risen in importance above canned. He said this is likely attributable to fresh sockeye being obtained from the Southeast and Cook Inlet regions, where it is easier to transport the fresh product due to the road system; Bristol Bay produces the largest share of frozen and canned sockeye. The corresponding bar graph labeled "Alaska Salmon Production: Pink," and accompanying market share value graph, indicate a dramatic increase in frozen production, in the last decade, and

the shift from 80 percent of the harvest being canned to only about 33 percent. He continued with similar bar graphs for chum production and shares, to note that the majority of the chum harvest is processed as a frozen product. Five major product forms account for most of the volume of Alaska salmon sales, which are: frozen sockeye, pink and chum, and canned sockeye and pink. He provided a graph labeled "Alaska Salmon Production by Product," and said roe products represent a valuable part of the market, though it is not as abundantly produced.

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MR. KNAPP described a series of pictures showing operations at a Chinese salmon reprocessing plant. An increasing share of Alaska's salmon harvest is frozen H&G, and shipped overseas for this type of handling. The first stage of reprocessing requires thawing the frozen H&G salmon, filleting the whole fish, and hand pulling the pinbones. This is followed by refreezing of the boneless fillets, cutting to market portions, and packaging for worldwide sale. The process may vary based on the focus of the processing plant, or the species being reprocessed. He pointed out that China reprocesses salmon and pollock, not only from Alaska, but also Russia, as well as shrimp from around the world. The world fish processing industry has become centered on Asian plants, due to labor costs. He provided a picture of a consumer ready box, and said boxes are printed with various languages for the appropriate world markets. The processing plants employ great numbers of workers, and the level of hand labor involved would not be possible in America.

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CHAIR SEATON noted the garb of the workers and asked about the attention to the details, such as the masks worn, and asked whether it relates to health and safety standards, and if it is a marketed standard.

MR. KNAPP reported that he has visited processing plants around the world, and said he is continually impressed by the importance placed on hygienics and product handling standards, which surpasses anything he has observed in Alaska. He suggested that the requirement for international re-export products may be especially stringent and backed up by corporate inspectors.

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REPRESENTATIVE KREISS-TOMKINS asked if processing improvements are taking place that would allow this type of processing to occur in Alaska, and still be competitive.

MR. KNAPP said pictures of salmon processing plants in Norway would primarily be of machines with very few people involved, basically to monitor the equipment, but not performing the manual labor as seen in the Asian plants. He reported that investments are being made to upgrade Alaskan plants, such as in Bristol Bay where new lines with fillet and portion machines have been installed. China and other Asian areas are experiencing increases in labor costs, thus, this practice may become a thing of the past.

REPRESENTATIVE KREISS-TOMKINS inquired about the possibility, or indications, that processing could shift back to Alaska.

MR. KNAPP responded that improvements and upgrades are being made, and value added products have driven a market demand that requires diversity. The expanded market creates new potential for processors, he opined, resulting in new areas of investment.

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REPRESENTATIVE GATTIS asked whether one reason the fresh catch is being frozen is due to the capacity of the canneries.

MR. KNAPP responded that companies with large plants and high volume processing have the capacity to provide a diverse product based on market requirements. Adjustments of product output may need to be made on a weekly; a scale of flexibility that did not previously exist. However, during high volume periods and peak season harvest, Alaskan processors must gear-up to produce a single product, such as canned or frozen salmon for instance. When the rush of salmon slows, other products can be run, such as fillets.

REPRESENTATIVE GATTIS surmised that cannery capacity doesn't tend to "drive what the market drives."

MR. KNAPP explained that the market is becoming increasingly important, and in high volume fisheries that occur in a short period of time, only one choice for processing may be possible.

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MR. KNAPP said the next set of data is from 2010 dealing with trends in exports and end-markets for major Alaska salmon products. He said that in tracking U.S. salmon exports, it can be assumed that it is primarily Alaskan salmon and whatever is not exported, is sold in the U.S. market; export data are accurate and domestic are assumed. He pointed out the graph labeled "Alaska Production & U.S. Exports: Frozen Sockeye Salmon," and said Alaska's most valuable salmon product is frozen sockeye. Review of data from the 1990s, and earlier, indicate that nearly all the frozen sockeye was exported to Japan. Through the 1990s to the current decade, sockeye is no longer being exported in the same volume, with more remaining in the U.S., and the primary exports are now to China and the EU, not Japan; this represents market diversification.

REPRESENTATIVE GATTIS queried who Japan is buying from, if not from the U.S.

MR. KNAPP replied that Japan has increased purchases of farmed salmon, particularly from South America. He explained that the lessening of dependence on the Japanese market came about for a number of reasons but created diversification in the Alaska market, with an end result of a strengthened industry. The data for 2011 and 2012 are not on the graph, but he said the pattern is consistent.

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MR. KNAPP reviewed data similarly graphed for pink salmon, and pointed out the huge increase in frozen production, which is primarily exported to China and Thailand for reprocessing. Continuing with comparative data for chum salmon, he said that a quantity of frozen chum was at one time destined for the U.S. market; a trend that has also shifted to China. The canned markets have not changed as dramatically, he reported. The U.S. remains a major consumer of canned pink salmon, particularly in the eastern and southern states. He provided an anecdote regarding a recent telephone call from a senior citizen group, located in North Carolina, inquiring about the rising cost of canned sockeye salmon. The major destination for canned sockeye salmon is the former British Commonwealth; especially the United Kingdom and Canada, probably for re-export he conjectured.

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MR. KNAPP moved on to trends in ex-vessel prices paid to fishermen, stating that there was a drastic fall in the 1990s

but a dramatic rebound since 2002. In the last year the ex-vessel price is predicted to record a dip; final data are pending. Inflation needs to be considered in the price recovery but the purchasing power of 2002 has not been regained. Regarding the first wholesale prices paid to processors, he said that two data sources were used to compile the report; COAR and the Alaska Department of Revenue (DOR), Salmon Price Reports. He pointed out the low rates that processors received in the 1990s are reflected in the ex-vessel prices paid out, as are the increases when the market rebounded. He directed attention to the table labeled "Average First Wholesale Prices Received by Alaska Salmon Processors: Roe," to state that the roe market stands alone without competition from farmed products. Influences to this market come from the competing markets in Russia and Japan. Roe is harvested strictly from wild salmon and the product prices have remained strong in recent years.

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MR. KNAPP reported that canned salmon prices have been strong in the last few years, especially in 2012. He said this can be attributed to a shortfall in production in 2011 and a lower sockeye harvest in 2012, while demand remained high. He opined that this is good news because canned salmon is a made in Alaska, value added, consumer ready product. In contrast, the wholesale prices for frozen and fresh salmon fell in 2012, which in turn lowered the ex-vessel prices paid to fishermen. Although the fresh salmon market prices fell for sockeye, the pink and chum remained strong.

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MR. KNAPP provided two bar graphs to indicate the ex-vessel value, one not adjusted for inflation and one adjusted for inflation. A tremendous recovery in value has been seen, with values nearly three times higher in 2011 than what was experienced in 2002. However, he pointed out that levels are still below the peak values recorded in the 1980s, especially when inflation is factored in; still, a good news story, he said. The graph labeled "First Wholesale Value of Alaska Salmon Production by Product," illustrates the increase in total wholesale value of Alaska production since the early 2000s. He pointed out the inclusion on this graph of roe data, and said roe products represent a significant component of the total wholesale value of Alaskan salmon; particularly from chum.

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REPRESENTATIVE GATTIS inquired why farmed salmon products do not include roe.

MR. KNAPP responded that the focus of farmed salmon is meat quality, and fish are harvested young when roe is not at its optimal peak. Also, the species used for farming is typically Atlantic salmon, and the roe, if harvested, would be significantly different.

MR. KNAPP explained how the difference of the total ex-vessel value and the total first wholesale value is the total processor margin, and he illustrated the relationship of these three figures on a graph labeled "Alaska Salmon Wholesale Value, Ex-Vessel Value, and Processor Margin," and pointed out that both processors and fishermen have shared in the recovery of value and prices; although it remains debatable about the equality of the shares.

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MR. KNAPP moved to the handout section titled "Trends in Total Earnings and Permit Prices in Selected Fisheries," and explained that Alaska supports twenty-seven limited entry salmon fisheries. Each is unique to species, catch trends, and other influential factors. Two of the most valuable fisheries are the Bristol Bay drift gillnet, and the Southeast purse seine. He pointed out the graph labeled "Total Earnings, Selected Alaska Salmon Fisheries," to indicate how these two fisheries have performed since 1980. He said that each of Alaska's 27 fisheries would show a different trend in catch, price, and species mix. The common trend would be that each would show a big drop in total earnings in the early 1990s followed by a major recovery. Another commonality would be the recovery of permit prices since 2002. In 2002 there was not a profit to be shown in any of the fisheries; the cost of the effort was not offset by the market price of the catch. He said that this also caused the price for a permit to drop and subsequently increase. He opined that the increase in permit prices reflects the optimism that fishermen have for the future prospects of Alaska salmon fisheries.

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MR. KNAPP said global trends are important to the context as indicated by the graph labeled "World Salmon Supply: Wild and Farmed," reflecting data from 1980-2008. He described how the

Alaskan salmon once dominated world markets, prior to the rise in farmed Atlantic salmon. Alaskan products now represent a small global percent. Although the volume of wild harvested salmon in Alaska and elsewhere, has remained basically static since 1980, the production of farmed salmon and saltwater trout has soared. Similar information is provided in a slightly different manner in the bar graph labeled "World Salmon Supply, Farmed and Wild, by Species; Estimated Global Salmon Supply," with data dated 1980-2012, which underscores the rise of farmed Atlantic salmon as the world dominant product. He said Chile and Norway are the primary global suppliers. Chile has recovered in recent years, from a disease related setback experienced in 2008, and Norway has continued to expand in the area of farmed products.

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REPRESENTATIVE KREISS-TOMKINS asked for further details regarding the sources of the world wild salmon supply.

MR. KNAPP responded that the four primary producers are Alaska, Canada, Japan, and Russia: Russian production is about half of what Alaska contributes and is comprised primarily of pink, some chum and a minor amount of sockeye; Japan also contributes about half of what Alaska does, but harvest levels are high due to the great quantity of hatchery chum produced; and Canada is a bit player, providing about a fifth of what Alaska provides, and, he added, supplies from Canada are on the decline.

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MR. KNAPP estimated U.S. salmon consumption, indicating a graph labeled "Approximate U.S. Fresh & Frozen Salmon Consumption, which illustrates the important contribution of Alaska wild salmon products to the U.S. market. The major volume of salmon consumption is dominated by imported Atlantic salmon. The graph component tracking imports of unspecified frozen fillets is probably data for reprocessed salmon coming back from China, he conjectured; possibly Alaska and Russian wild stocks. The contribution, of Alaska Wild salmon products, is important in the U.S. market but far from being dominant.

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REPRESENTATIVE KREISS-TOMKINS queried whether there is an appreciable supply of wild salmon supplied by fisheries in the Lower 48.

MR. KNAPP responded that a wild salmon industry exists in Puget Sound, [Washington], and pointed out the colored bar graph component representing imports-all other, to illustrate where these contributions, as well as Canadian, are accounted for on the graph.

[11:07:04 AM](#)

MR. KNAPP directed attention to the graph labeled "U.S. Monthly Salmon Imports, by Product," and reviewed data collected during June 2000-2012, reflecting the dominance of the Atlantic farmed salmon market. Farmed Atlantic salmon markets have been diversified and developed new areas for expansion. He pointed out that from 1998-2011, annual Russian imports jumped from 12,000 to 147,000 metric tons; becoming Norway's largest market for farmed Atlantic salmon. This has occurred, despite Russia's production of wild salmon. During the same time frame, South American export numbers rose from 8,000 to 45,000 metric tons and is aggressively market throughout the world. The EU is Norway's biggest market, he said, and added that Denmark and Poland are reprocessing countries. As an example of unexpected variables to the market, he recounted a recent action by China to boycott Norwegian salmon products, due to the Nobel Peace Prize being awarded to a Chinese dissident. The largest market for Chilean products is the U.S., but Brazil has become an area of major growth. It is important that the farmed salmon markets are diversifying, he opined, because if the Atlantic farmed salmon was targeted at traditional wild salmon markets the prices would become depressed.

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MR. KNAPP referred to the line graph labeled "Average U.S. Import Prices," to discuss the January fluctuations of farmed salmon products of 2007-2013, pointing out that the trends are the same as those of the wild salmon. He said that the prices collapsed in the 1990s, and recouped to spike in 2010 and 2011, due to expanding world demand through identification of new markets. Even as production rebounded, the expanded markets created a supply and demand that spurred subsequent growth and increased prices. He cited the correlation of the farmed and wild salmon prices, and said is not possible to predict the markets but optimism prevails.

[11:15:09 AM](#)

MR. KNAPP offered observations of the data analysis, to explain the recovery in Alaska salmon prices since 2002. The Alaska salmon industry representatives contributed through: sustained marketing strategies; identification of niche markets; development of new markets; creation of new product forms; and implementation of methods for improved product quality. He elaborated to state that the Alaska Seafood Marketing Institute (ASMI), in conjunction with regional development agencies, and processors, has created a worldwide, high profile, recognizable market scheme for Alaskan wild salmon. The global salmon market influences on Alaska's salmon prices have included a greatly expanded world salmon demand, which then experienced a shortfall in the farmed salmon supply due to Chilean disease problems, a situation which may occur again. He said that it could be argued that Alaska wild salmon is a superior product; however, consumers get conditioned to what they eat. In blind taste tests, Alaska wild salmon is not always chosen as best. Competition is important to a point, but cultivation of market recognition and increased niche markets for Alaska wild salmon are important areas for focus. Not all markets are competitive, such as canned salmon and roe products, where sales have remained strong. The increase in price for farmed and wild salmon over the past decade, he stressed, is because world demand for product grew faster than the ability to supply. The rapid demand was due to a number of factors, including: development of new geographic markets, such as Russia, Brazil and China; growing incomes in the new markets; development of new product forms; sale of products from more types of retail outlets; and shifting consumer tastes as salmon became a more familiar meal with known health benefits. The reasons for the slowdown in supply include: nature limits the supply of wild salmon; farmed salmon disease; and higher salmon feed costs for farming.

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MR. KNAPP said the future outlook for Alaska salmon markets can be viewed from short and long term perspectives. The short term is less predictable, with a number of variables to consider centered on supply and demand. Major factors include: run forecasts; harvest of wild salmon in Russia and Japan; the foreign exchange rate for currencies, particularly the Euro and the Japanese yen; farmed salmon market conditions; and factors which affect Alaska processor costs, such as harvest volumes and visa rules for foreign workers. He stressed that run predictions may not be accurate, but tend to have short term monetary effects.

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MR. KNAPP offered that the long-term outlook is good, and said there are many reasons for optimism for Alaska wild salmon. Influential factors ensuring worldwide demand include: a growing global population; economic opportunities in emerging, which enables the populace to purchase products; health benefits are associated with salmon consumption; and market appeal is expanding to a broader range of consumers. The limited supply of wild salmon means the market will not be flooded, and assures the potential for continued niche market expansion. The potential long-term concerns for the farmed fish market include a continued possibility for disease and limits for procuring fish oil and fish meal as feed sources. Finally, he said, the challenges to the wild salmon market potential include: resource uncertainty, such as regime shifts and climate change; market glut caused by increased farmed fish production; development of other non-salmon fish species, including tilapia, barramundi, and pangasius; and world economic and political uncertainties. He finished, stating that depending on a wild resource presents challenges, but it is an optimistic time for the business.

[11:29:21 AM](#)

CHAIR SEATON said that pollock is a strong component in Alaska's fishing industry, but salmon dominate across the state and create the underpinnings of the coastal infrastructures and economies.

[11:30:57 AM](#)

#### **ADJOURNMENT**

There being no further business before the committee, the House Special Committee on Fisheries meeting was adjourned at 11:30 a.m.