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Here's the Wrap on Alaska's 2023 Salmon Harvest

By Laine Welch
November 8, 2023

Alaska's 2023 salmon season produced far more fish than last year, but the pay out to fishermen was bleak.

A catch of 230.2 million fish was a 43% increase when compared to the 2022 harvest of 160.7 million salmon. The total dockside value of $399 million, however, was a nearly 45% drop from the more than $720.4 million paid to Alaska fishermen last season.

That's according to a recent report by the Alaska Department of Fish and Game, which provides catches and prices for every salmon species and Alaska fishing region.

A high point: When compared to Alaska's salmon fisheries going back to 1985, the 2023 salmon catch of more than 230 million fish that weighed in at 920 million pounds was the fourth highest on record for total fish harvests, and the seventh highest for poundage.

A low point: Adjusted for inflation, the 2023 value estimate of $398.6 million is the sixth lowest payout to fishermen since 1975.

"International market conditions significantly impacted pricing of salmon statewide, thus the value of the harvest," the ADF&G report said.

Fewer fishermen were out on the Alaska salmon grounds again this year. A total of 5,577 permit holders made landings in 2023, a decrease from 6,126 permits fished in 2022.

THE STATEWIDE CATCH

— Sockeye salmon accounted for approximately 45% of the total fishery value topping $181 million, and 23% of the harvest at 51.8 million fish.

— Pink salmon comprised about 29% of the value at $113.7 million, and 66% of the harvest with 152.4 million fish.

— Chum salmon accounted for 19% of the value at $74.6 million, and approximately 10% of the harvest at 23.5 million fish.

— Coho salmon accounted for about 4% of the value at $14.4 million, and 1% of the harvest at 2.3 million fish.

— Chinook salmon harvest was estimated at just under 235,000 fish with a preliminary exvessel value of $14.7 million.

The harvest and value estimates will change as fish tickets are finalized, and these numbers don't include post-season price adjustments.

MOST PRICES SINK STATEWIDE

Here are the average prices per pound paid to Alaska fishermen in 2023 with comparisons to 2022:

— 2023 sockeyes averaged 64 cents per pound vs. $1.25 in 2022

— 2023 pinks averaged 24 cents per pound vs. 43 cents in 2022

— 2023 chums averaged 49 cents per pound vs. $1.08 in 2022

— 2023 coho averaged $1.07 per pound vs. $1.57 in 2022

— 2023 Chinook averaged $5.89 per pound vs. $5.58 in 2022

KODIAK SALMON WRAP

Kodiak's 2023 salmon catch topped 28.4 million fish, slightly below what managers had predicted but above the 10-year average. The harvests of the five salmon species around Kodiak Island produced few surprises and most of the fisheries were dubbed "above average."

Following the statewide trend of depressed prices, the value of the Kodiak fishery is pegged at a dismal $24.3 million, down by more than 30% from 2022 and well below the 10-year average of $39 million.

That will pinch Kodiak in terms of the 3% raw fish taxes it takes in each year that are based on the prices paid to fishermen at the docks.

Once again, fewer Kodiak boats were out on the water.

According to the commercial salmon summary report issued by ADF&G's Kodiak office, 163 of Kodiak seiners went fishing, or 44 percent. A total of 122 of the 187 set gillnetters put their nets in the water, or 65 percent. Fewer than three of the 27 beach seine permits fished in 2023.

Seiners accounted for most of the fish harvested around Kodiak, and they averaged $131,586 per fished permit, down 30 percent from the $182,515 they pocketed in 2022. Set gillnet earnings averaged $23,156 compared to $31,404 in 2022, down more than 26 percent.

A LOOK AT THE KODIAK CATCH

Kodiak salmon fishermen in 2023 caught 11,360 Chinook salmon, which was above average. Kodiak does not have a directed fishery for kings, but they are caught during sockeye and pink salmon fishing.

For sockeyes, the harvest of 2.56 million reds was above the forecast and the 10-year average.

Most of Kodiak's chum runs were above average, producing a higher than expected catch of 827,907 fish.

For pink salmon, the "bread and butter" fishery, a halt to fish buying in August cut into harvest expectations. The catch of 24.74 million fish was slightly below the forecast but above the 10-year average.

"Had processors kept buying into September, the forecast would have likely been harvested," the ADF&G report said.

The Kodiak coho salmon catch was the only other to come in shy of the forecast at 265,918 fish.

KODIAK PRICE BREAKDOWN

Kodiak fishermen averaged 57 cents per pound for Chinook salmon in 2023 compared to $2.50 in 2022. In 2023, sockeyes averaged 84 cents per pound vs. $1.70 per pound last year. For cohos, the price of 28 cents per pound this year compares to 80 cents per pound last year.

Pink salmon prices averaged 26 cents per pound in 2023; last year it was 40 cents per pound. Chum salmon prices for Kodiak fishermen also averaged 26 cents per pound. That compares to 75 cents per pound last year.

Photo Credit: karenfoleyphotography / Shutterstock.com

STORY TAGS:
salmon, Alaska

Story Posted: 11/8/2023 8:39:55 AM

Source: SeafoodNews.com

Chum Prices Collapse in Southeast Alaska As Processors See Global Market Flood From Russia

August 7, 2023

Last Saturday Trident Seafoods sent a letter to their fleet dropping the price of chum salmon from $.50/lb to $.20/lb, effective Sunday, August 6, 2023.

Calling the global salmon market “volatile” and future indicators “more concerning”, Trident gave a short history of this season’s markets.

“Spring of 2023 brought a sharp decrease in wholesale prices across all species and continues to drop as the weeks progress. Bristol Bay served as early confirmation of this unprecedented decline,” Trident’s CEO Joe Bundrant wrote. The letter was also signed by Trident’s Senior Vice President of Alaska Operations, Jeff Welbourn.

“We know that this is not an easy time and we understand and empathize with our fishing community. Given how quickly things are changing we are committee to being as transparent as possible, so you can make timely and informed decisions.”

In addition to the price drop, Trident announced that "on or about" September 1, they will stop buying salmon in all areas except Petersburg and Cordova South to support coho fisheries in both those areas.

Alaska General Seafoods followed suit on price, announcing Saturday evening that the price on chum would drop to $.17/lb. with an additional three-cents for those delivered from refrigerated seawater (RSW) holds, for a total of $.20/lb. On pink salmon, prices dropped to $.15/lb plus three cents for RSW, for a total of $.18/lb. Chinook salmon dropped to $4/lb. for brights and $1/lb. for darks. All prices effective Sunday, August 6.

AGS explained the move was triggered by Russian production. “800,000,000 pounds of Russian pinks are flooding the world market to fund the Ukraine war, driving the price down for everyone," AGS Southeast fleet manager posted.

OBI Seafoods, a major buyer throughout Alaska, reportedly put their fleet on limited deliveries.

Southeast's chum salmon season is winding down, with total catches in Southeast, as of last weekend, at 7.3 million fish compared to a pre-season forecast of 9.8 million. The historical and current timing trajectory for the chum run in Southeast started going down July 29, and catches have fallen sharply ever since.

That’s not true of pink salmon, however. Total catches of pinks statewide are now at 52.43 million salmon compared to a pre-season forecast of 122.2 million pinks. ADF&G timing charts show historical increases in catches until a peak at week 33 which this year ends on August 19 (five year average) or week 34 ending August 26 (last year) before catches go down. This year, a slight decrease in catches was recorded between weeks 30 and 31, which ended last Saturday. Most pinks in the state come from Prince William Sound and Southeast Alaska. Those two districts are lagging behind pre-season estimates in total numbers, but PWS catches bumped

up between statistical week 30 and 31, indicating that a second, perhaps higher peak will be happening soon. In PWS, week 34 was the highest producer of the year for pinks two years ago, and at a significant margin: more than 11 million fish were caught during that week which ended August 21, 2021. This year week 34 ends August 26, 2023.

Southeast's pink landings dropped from week 30 to week 31 this year, but they went higher sooner than the five-year catch averages and the two-year ago catch at this time. Historically, pink landings peak in southeast during week 32, so it's likely the runs will not meet the pre-season forecast in that area.

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STORY TAGS:
Southeast Chum prices, Trident Seafoods

Story Posted: 8/7/2023 6:19:39 AM

Source: SeafoodNews.com

TRIDENT SEAFOODS CORPORATION

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August 5, 2023

Trident Fishing Family,

As we head into August and the salmon season enters its final month, we want to provide you with an update on the current state of the salmon markets. First and foremost, we want to thank you for choosing to fish with Trident. Your partnership is not something we take for granted and it gives us the drive to keep evolving and moving ahead, especially in the face of tough market headwinds.

The current state of the salmon markets is volatile, and future indicators are even more concerning. Spring of 2023 brought a sharp decrease in wholesale prices across all species and continues to drop as the weeks progress. Bristol Bay served as early confirmation of this unprecedented decline. We know this is not an easy time and we understand and empathize with our fishing community. Given how quickly things are changing we are committed to being as transparent as possible, so you can make timely and informed decisions.

Effective Sunday, August 6th, 2023 *(does not apply retroactively)*:

1. As chum markets have collapsed, remaining chum harvest will be $0.20 all-in, state-wide.
2. We will be monitoring PMC percentages in pinks, opener-to-opener, and will drop grounds price on remaining harvest when PMC percentage starts to increase significantly.
3. On or about September 1st 2023, we will stop buying salmon in all areas except for Petersburg and Cordova South, which will keep supporting coho fisheries (we will not close mid-opener).
4. Trident will not be participating in the Puget Sound or Fall salmon fisheries.

Last week, Russia harvested pink volume equivalent to our entire Alaska pink annual forecast, and they have shown a willingness to offload inventory at very low prices in part to fund the war in Ukraine. We haven't seen a collapse in value like this since the 1990s when pinks went well under ten cents a pound. At the same time, record inflation is pushing up costs across the board for everyone. Trident is actively managing internal costs so we can return as much value as possible to our fishermen during this period.

We are doing everything we can during this time to maintain service, stability, and value to our fleet. We are committed to frequent and open communication and encourage you to reach out to your regional managers with questions and concerns.

Joe Bundrant, CEO

Jeff Welbourn, SVP Alaska Operations

https://www.undercurrentnews.com/2023/08/03/russias-wild-salmon-catch-rockets-close-to-400000t/

https://www.alaskaseafood.org/wp-content/uploads/2023-Salmon-Harvest-Update-7.pdf

Southeast Alaska is having a banner fish salmon fishing year. Photo: Southeast Alaska Seiners Association

Pink salmon harvest exploding in Southeast Alaska; catch could be triple pre-season forecast of 19 million fish

If the harvest reaches the latest predictions from ADF&G, it could rank in the top 10 harvests since statehood, but prices are low.

28 June 2023 3:00 GMT
2 August 2023 20:49 GMT *UPDATED 2 August 2023 21:04 GMT*
By **Rachel Sapin**
Southeast Alaska's pink salmon harvest could hit 59 million fish, more than triple what was forecasted before the season began.

That's according to Alaska Department of Fish and Game (ADF&G) data on the fishery through week 30, which started July 23 and ran through July 29. If the harvest reaches that size, it would rank "in the top 10 harvests since statehood," according to ADF&G commercial fisheries researchers Teresa Fish and Andy Piston.

Troy Thynes, ADF&G management coordinator for commercial fisheries in the area, told **IntraFish** Wednesday the Southeast Alaska purse seine fishery harvest is currently estimated around 15 million, which is almost at the preseason forecast of 19 million.

salmon harvests typically occur in the next week or two," he said, but added it's hard say whether the harvest will eclipse 50 million fish due to fleet size reduction and processor capacity issues.

But it's likely the harvest could eclipse 40 million, he said.

Alaska pink salmon harvests start in June and usually peak in early to mid-August. The pink salmon catch in odd years is generally higher because of the lifecycle of the species, but this year ADF&G initially forecasted it could come in low due to juvenile salmon being impacted potentially by cool to near-average sea surface temperatures.

Prince William Sound pinks

Pink salmon harvests are also looking promising in Prince William Sound, where fishing started in mid July.

The 2023 total statewide pink salmon harvest forecast is 122 million fish, about half of it projected to be caught in Prince William Sound.

Heather Scannell, seine area management biologist in Cordova for ADF&G, told **IntraFish** both this year's wild and hatchery salmon returns are both healthy and are likely to go above predictions.

Scannell explained the harvest this year, similar to last year, is being driven by a strong salmon return to the Solomon Gulch Hatchery, operated by the Valdez Fisheries Development Association.

Now, Scannell, said other hatcheries are coming online as part of its second peak.

The Prince William Sound (PWS) fishing season for pinks runs from late June through early September, and it has two peaks that occur separately in July and August, Scannell explained.

"We've transitioned into the second part of the run, which is dominated by the three hatcheries operated by Prince William Sound Aquaculture Corp," she said. "All indications at this point are that the run will come in at or above their preseason forecast of 20.28 million commercial harvest."

The pink salmon run in PWS is doing so well, in fact, that ADF&G has increased the 14-hour fishing periods to 16 hours.

Prince William Sound initially put the catch estimate at around 18.4 million wild fish. The fishery is also expected to produce 42.8 million worth of hatchery fish this year.

Lots of fish, low prices

Fishermen and major Alaska canneries confirmed with **IntraFish** that fishermen in both Southeast Alaska and Prince William sound are being paid 20 cents per pound for the pink salmon with 3 cents added for those using refrigerated seawater systems (RSW) to hold the fish on their boats.

That is more than a 30-percent drop in price from last year for Southeast fishermen and a nearly 60-percent drop for Prince William Sound fishermen compared to last year.

Major fisheries such as the Bristol Bay sockeye salmon fishery have seen a dramatic drop in base prices for fish this year. Trident Seafoods announced the first price of 50 cents per pound earlier this month, a nearly 56 percent drop from the base price of $1.15 (€1.07) paid in 2022 for Bristol Bay sockeye.

Fishermen and buyers continue to cite excess inventory from last season as having a significant impact on all Alaska salmon prices. Alaska salmon is also competing with Russia, whose federal fishery agency announced wild salmon harvests are up 46 percent year-to-date from 2021.

Russia's wild salmon harvest 'significantly exceeding the figures of the last three years'; country on pace for record haul

Read more

Because most of Russia's salmon harvest is pink salmon, this will mean more pink salmon on the world market this year if Russia's harvests continue to exceed expectations, said Sam Friedman, a consultant with McKinley Research Group.

The Russian pre-season forecast this year was 375,000 metric tons of pink salmon, nearly twice the Alaska pink salmon forecast.(Copyright)

Russia is on its way to a huge 2023 wild salmon harvest.Photo: Shutterstock

Russia's wild salmon harvest 'significantly exceeding the figures of the last three years'; country on pace for record haul

Fisheries

18 July 2023 2:01 GMT
27 July 2023 4:01 GMT *UPDATED 27 July 2023 4:01 GMT*
By **Evgeny Vovchenko**

Russia's Pacific wild salmon season is in full swing, and it is already looking like it will be one for the record books.

The large harvest, which is dominated by pink salmon this year, is likely to put further stress on global markets already facing a glut of wild salmon from the United States, the world's other leading producer of the fish.

As of July 25, the country's overall wild salmon harvest across all of Russia's far eastern fishing areas exceeded 246,000 metric tons (542.3 million pounds), up 46 percent compared with this time in 2021, a year in which Russia recorded the third-largest harvest in its history with 539,000 metric tons.

In Russia, wild salmon catches are compared on a two-year pink salmon cycle, given that this species makes up the majority of the country's salmon catches.

Wild salmon harvests are showing significant growth in all main fishing areas. Catches in the primary area off Kamchatka jumped 42 percent to reach 225,600 metric tons, making up 91 percent of the total.

Salmon catches in the Sakhalin area climbed 85 percent to 6,200 metric tons, with the Magadan region seeing a 70 percent increase to 8,600 metric tons.

Harvests in the Khabarovsk Krai grew 3.5 times to exceed 4,000 metric tons, while the Primorskiy Krai showed a fourteenfold increase over this time of 2021 to reach more than 1,500 metric tons. Catches off Chukotka reached 495 metric tons.

“Salmon catches are significantly exceeding the figures of the last three years,” said Vasily Sokolov, deputy head of Russia’s federal fishery agency, Rosrybolovstvo.

“We expect that the scientific forecast for the salmon season will come true, and, possibly, will be surpassed. Adjustments have already been made to increase the permitted catches in the Primorskiy Territory, the Sakhalin Region and Kamchatka,” said Sokolov.

Rosrybolovstvo expects this year’s overall wild salmon harvest in the Far East to reach 511,000 metric tons, which would make it the fourth-largest catch in history, exceeding more than 1.1 billion pounds.

Last year, Russia's total wild salmon harvest was 272,000 metric tons. However, given a two-year pink salmon cycle return, every other year sees a much higher volume.

Russia’s Pacific wild salmon season officially begins every June and is the country’s second-largest fishery in volume after pollock.

INTRAFISH

Democratic Alaska House Representative Mary Peltola has made protecting Alaska wild salmon a staple of her Congressional prioritites.Photo: Mary Peltola

US lawmakers create 'seafood caucus' to combat imports from China, Russia

9 November 2023 17:55 GMT *UPDATED 9 November 2023 18:01 GMT*
By **Rachel Sapin**

Alaska lawmaker Mary Peltola is joining with other US lawmakers across the country in forming the "American Seafood Caucus" to intensify the government's effort to curtail imports of seafood from Russia and China.

"America needs a national strategy to respond and protect our domestic fishermen," said Petola.

The Congressional caucus said Thursday is it providing "a forum for seafood policy champions to find common ground and ensure that healthy, domestically produced, seafood doesn't take a backseat to foreign products that often don't uphold our quality and sustainability standards, or may be illegally subsidized by foreign governments."

Organizations supporting the caucus include the Louisiana Shrimp Association, Gulf Shellfish Farmers Association, the Alaska Seafood Marketing Institute, Taylor Shellfish Farms, Pacific Seafood Processors Association, Hama Hama Oysters, Virginia Seafood, and Shellfish Growers of Virginia.

The inaugural co-chairs represent the four major coastal regions of the United States, and work is being done to add lawmakers from other regions of the country.

Louisiana Republican House Rep. Garret Graves, Washington Rep. Derek Kilmer and Republican House Rep. Rob Wittman (R-VA) are all part of the caucus.

Peltola said the federal government should treat Alaska seafood as a priority and focus on stopping Russia and China from negatively impacting the domestic seafood industry.

"Right now, Russia and China are pursuing exploitative trawling that is damaging our fisheries and processing that is flooding the global market with environmentally harmful, unethically produced seafood," she said.

Peltola is also backing legislation to ban the importation of all seafood from Russia into the United States under the proposed US-Russian Federation Seafood Reciprocity Act.

Russia's has barred the importation of seafood from the United States and other western countries since 2014. Russia enacted its embargo in response to a suite of sanctions the United States and its allies imposed following Russia's 2014 invasion of the Crimean Peninsula in Ukraine.

Last year, in response to Russia's invasion of Ukraine, US President Joe Biden signed an executive order that prohibits the importation of unaltered seafood originating in Russia. However that executive order fails to block Russian seafood that is reprocessed in China.

This loophole allows Russian-origin pollock reprocessed in China into the US market, making its way into popular retail fish sticks and other frozen seafood items sold under leading brands such as Gorton's.

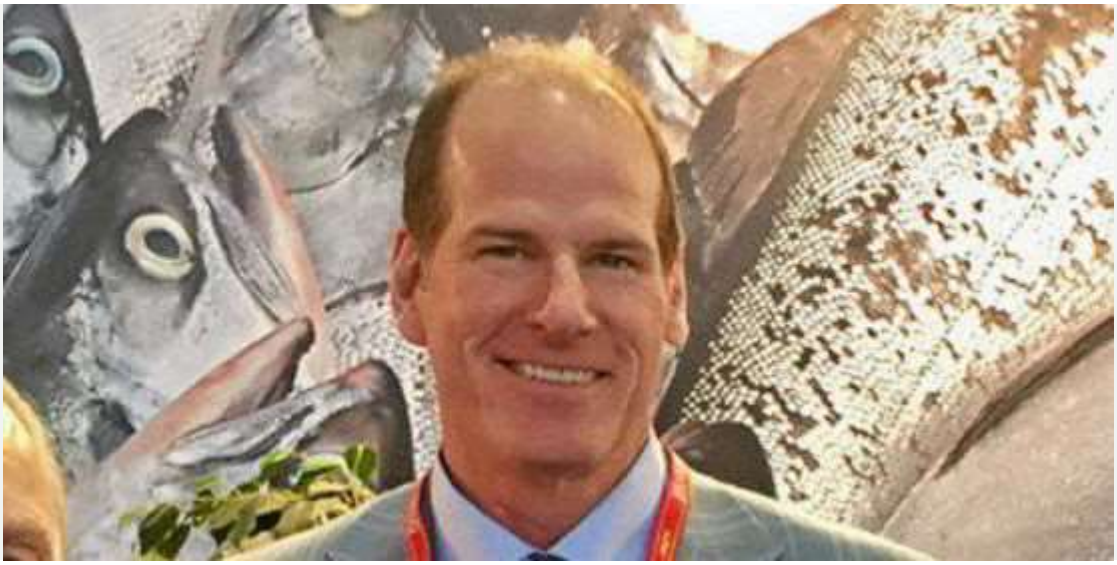
Some seafood executives point to Russia's ongoing disruption of the global market as a primary reason for the need for government intervention to curtail imports.

The issue has created tension between US East Coast and West Coast whitefish processors.

West coast processors, who directly harvest pollock in Alaska, object to what they say is a lack of transparency in telling consumers where the reprocessed fish is actually from. They also say the poor quality of twice-frozen product damages consumer perception of pollock products such as fish sticks.

East Coast processors who rely on imported Chinese product argue that US West Coast pollock producers are seeking to ban the reprocessed whitefish in an effort to buoy the US Alaska pollock market amid "deteriorating market conditions."

INTRAFISH



"We're now carrying way more frozen inventory than we would have expected to, and borrowing costs are a little over double," said Mark Palmer, CEO of OBI Seafoods.Photo: Ocean Beauty

OBI Seafoods CEO Mark Palmer: Alaska's sinking salmon market 'keeps me up at night'

Palmer pointed to the USDA as one solution for how Alaska processors can get out of their current financial crisis.

The dire financial situation facing Alaska seafood processors is disturbing the sleep of Mark Palmer, CEO of OBI Seafoods, one of Alaska's largest seafood producers.

Processors cannot survive if they continue to finance these inventory levels and pay these interest rates ...

A major downturn in salmon prices this year, driven by high inventories and weak consumer demand, has put Alaska processors in precarious financial waters.

The situation, Palmer told fishermen last week during a salmon market update hosted by United Fishermen of Alaska (UFA), "keeps me up at night."

And it's not just OBI. This summer, Alaska processor Peter Pan Seafood had to publicly reassure its fishermen that the company was in good financial shape as the key Bristol Bay sockeye salmon season began.

Other Alaska processors, too, are struggling to pull themselves free of a year of rocketing costs and anemic sales that go beyond just salmon.

Recently Alaska pollock giant American Seafoods, which is up for sale, acknowledged that "belt-tightening" at the company is necessary as a result of the recent decline in global pollock prices.

Triggered by salmon

The trouble began with last year's harvest of Bristol Bay sockeye salmon.

The catch hit a record 60 million fish, which had the horrible timing of moving into consumer markets in Europe and North America that were collapsing because of the pain inflation was inflicting on shoppers.

Retailers, straddled with their own burgeoning inventories, stopped buying, and the supply chain backed up like a plugged toilet.

The excess inventory caused ex-vessel prices for Bristol Bay fishermen this past summer to sink to 50 cents per pound, dramatically less than the base price of $1.15 (€1.07) they received for their fish in 2022.

"Fishermen cannot survive being paid the prices they were paid this last year," Palmer said during the UFA market update.

"Processors cannot survive if they continue to finance these inventory levels and pay these interest rates, and all of us are recognizing cost drivers to our business."

Bristol Bay fishermen earlier this summer even held a public protest, expressing their anger over the price, with some quitting the season early, saying they were not being paid well enough for their labor.

"You think about some of the most vulnerable sectors of our fleet, young people who just went out and got boat loans, and went out, and they're facing the grounds prices and the returns that they got this season, we know that's the future of our industry and they won't be around if we can't see value increase," Palmer said.

China as an export market has 'all but disappeared'

At the start of this summer's Bristol Bay season in June, processors were still holding millions of pounds of last year's salmon in inventory, most of it being lower-quality No. 3 grade fish, the equivalent of ground beef.

Palmer noted that China, an export market the Alaska seafood industry has relied on for years for unloading fish for "low-grade reprocessing," has "all but disappear compared to what it was just four years ago."

Without that money coming in, processors have struggled under bloated balance sheets, and currently face high pack loan interest rates.

"We're now carrying way more frozen inventory than we would have expected to, and borrowing costs are a little over double," Palmer said.

"So if you doubled the borrowing costs, you double your frozen inventory. In real dollars, we're going to spend four times as much in financing inventory as we did last year."

Allen Kimball, a senior executive consultant for Alaska processing giant Trident Seafoods, also participated in the UFA meeting. He pointed out that another global issue the Alaska seafood industry is dealing with when it comes to foreign markets is Russia's tightening relationship with China.

He noted that Russia is becoming a "preferred supplier, and joint operator with China," which in turn makes the global market for seafood more competitive for US producers.

For the past 20 years, Trident has operated in China Trident's CEO Joe Bundrant said earlier this month in an **IntraFish** guest column. The vast majority of Trident's seafood is caught in Alaska and processed in the United States, Japan and Europe, and the company does some intermediary processing in China.

In 2022, as part of its commitment to holding Russia accountable for its continued aggression in Ukraine, the Biden administration released an executive order banning the importation of fish, seafood and other products from Russia.

"Unfortunately, Russian seafood harvesters have been able to circumvent the ban in our sector by shifting their processing to other countries, including China," Bundrant said.

Processed in China, the Russian fish then flows into the United States and Europe tariff-free, he explained. Meanwhile, US seafood has been completely banned from Russia since 2014, and seafood exports to China have been subject to a 25 percent retaliatory tariff since 2018.

"This unfair trade advantage, combined with so little transparency that consumers can't discern Alaskan from Russian-harvested seafood, puts US seafood producers at a huge disadvantage in US and international markets, compounding already daunting challenges to the long-term competitiveness and viability of US seafood production," said Bundrant.

USDA as a solution?

Palmer said the US Department of Agriculture (USDA) buying more Alaska seafood is one way to address "the liquidity that is missing from our foreign markets." He emphasized the USDA "needs to be part of our long-term solution."

Palmer's concerns echo those of Trident Seafoods, Pacific Seafood, the National Fisheries Institute (NFI) and other major seafood businesses, which have pointed out the USDA appears to value other proteins over seafood when it comes to its national food programs.

"The bottom line is they've got to increase purchases, they need to adjust the timing of when they purchase products from the industry to match up with the cash flow cycles we all need to be in," Palmer said.

He said the US government also needs to provide more financial aid to fishermen and processors.

"They need to provide some low-interest financing to fishermen and processors and they've got to provide some kind of disaster relief insurance program that we could all buy into."

Providing quality product at lower cost points

Palmer also brought up during the interview that promoting quality Alaska seafood products at lower price points is another way to regain customers lost to inflation and other market turmoil.

He noted quick-service and fast-casual restaurants are a growing area for the industry over white tablecloth restaurants.

"We're gonna be more reliant on that type of foodservice operator to help move through volume than we have been in the past," he said, noting the move could bring back consumers who in previous years have been priced out of the category.

Alaska Salmon Research Task Force

Information and updates on the task force activities.

https://www.fisheries.noaa.gov/alaska/ecosystems/alaska-salmon-research-task-force

Alaska

In response to unprecedented declines in chum and Chinook salmon on the Yukon and Kuskokwim rivers, the Alaska Salmon Task Force was created by an act of Congress. Under the Act, the National Marine Fisheries Service, acting on behalf of the Secretary of Commerce, is required to convene an Alaska Salmon Research Task Force to identify data gaps and develop a collaborative science plan for sustainable management of salmon in Alaska.

Draft Alaska Salmon Research Task Force Report October 2023

The following is the initial DRAFT of our AKSRTF Report as of October 2023. Our goal is to keep the report to about 30 pages, but we will have appendices to capture all relevant information. To date, we have two appendices that include Existing Knowledge and Organizations engaged in salmon research in Alaska. We will continue to build the report based on AKSRTF input, the Arctic Yukon Kuskokwim Working Group report recommendations on research needs for the AYK Region, and Public Comment.

At this time, we are seeking Public Comment on: Existing Knowledge, Research Gaps, and Applied Research that is needed to better understand the increased variability and declining salmon returns in some regions of Alaska.

We greatly value your input in the development of this report. Comments on Existing Knowledge, Research Gaps, and Applied Research Needs can be given via this form.

Task Force Purpose and Objectives

The task force must review and report on research about Pacific salmon in Alaska, identify applied research needed to better understand salmon migration and declining salmon returns in some regions of Alaska, and support sustainable management of salmon.

The purposes of the Act are to:

1. Ensure that Pacific salmon trends in Alaska regarding productivity and abundance are characterized and that research needs are identified
2. Prioritize scientific research needs for Pacific salmon in Alaska
3. Address the increased variability or decline in Pacific salmon returns in Alaska by creating a coordinated salmon research strategy

4. Support collaboration and coordination for Pacific salmon conservation efforts in Alaska

Task Force Membership

As specified in the legislation, the Task Force will consist of 13 to 19 members.

The Secretary of Commerce will appoint a representative NOAA, the North Pacific Fishery Management Council, and the United States section of the Pacific Salmon Commission. The Secretary will also appoint between two and five representatives from each of the following categories, with due regard to differences in regional perspectives and experience:

- Residents of Alaska who possess personal knowledge of, and direct experience with, subsistence uses in rural Alaska (at least two representatives)
- Alaska fishing industry representatives throughout the salmon supply chain, including from directed commercial fishing, recreational fishing, charter fishing, seafood processors, salmon prohibited species catch (bycatch) users, or hatcheries

The Secretary will appoint five representatives who are academic experts in salmon biology, salmon ecology (marine and freshwater), salmon habitat restoration and conservation, or comprehensive marine research planning in the North Pacific.

The Governor of Alaska will appoint one representative from the State of Alaska who is knowledgeable about the State of Alaska's salmon research efforts.

Task Force Workplan

Thirty days after convening the larger body, the task force will also form a work group focused on the Arctic-Yukon-Kuskokwim regions of Western Alaska consisting of no fewer than five representatives.

After 1 year, the task force will produce a report that describes the scientific review and recommendations on filling knowledge gaps that warrant further scientific inquiry.

NOAA Fisheries' Alaska Fisheries Science Center is providing organizational and staff support for the Task Force.

DATE	TITLE
June 28, 2023	Task Force Meeting– Introductions and Tasks
July 27, 2023	Task Force Meeting (virtual–open to public); Establish the ARCTIC YUKON KUSKOKWIM WORKING GROUP
September 19, 2023	Task Force Meeting (virtual–open to public); Discuss report outline and progress toward existing knowledge and research gaps

DATE	TITLE
November 14/15, 2023	Task Force Meeting (Hybrid in Anchorage, AK–open to public); Day 1–(1/2 day) Report Existing knowledge and gaps (1/2 day) Public comment/testimony; Day 2–(1/2 day) Report Research Needs (1/2 day) Public comment/testimony.
January 25, 2024	Task Force Meeting (virtual–open to public); Report on progress toward DRAFT Report
March 27, 2024	Task Force Meeting (virtual–open to public) Report on DRAFT FINAL REPORT
May 22, 2024	Task Force Meeting (virtual – open to public) FINAL DRAFT of REPORT
June 27, 2024	FINAL REPORT

Last updated by Alaska Fisheries Science Center on October 23, 2023

Some Pacific Salmon Migration Out of Sync with Food Supply, Study says

By Ashley Joannou
May 8, 2023

Climate change is knocking some Pacific salmon out of alignment with the growth of the ocean plankton they eat to survive, new research says.

In the largest data set ever gathered on the timing of juvenile salmon migration, research found the changing climate is causing some salmon populations to migrate earlier out of step with plankton blooms that are also affected by changing weather patterns.

Lead author Sam Wilson said that as climate change continues the two will match less and less, putting salmon survival at risk.

“The coastal ocean is changing in one way and Pacific salmon are changing in a myriad of other ways and those ways don't always align," said Ms. Wilson, a postdoctoral researcher in the salmon watersheds lab at Simon Fraser University.

Numerous species of Pacific salmon are at risk or even endangered for several reasons, including overharvesting and lack of habitat protections. Ms. Wilson suggests the response by the young salmon may be a coping mechanism that helps them survive and reinforces the need to protect biodiversity.

Ms. Wilson spent almost five years collecting data from research projects around North America on 66 wild Pacific salmon populations stretching from Oregon to British Columbia to Alaska and dating back at least 20 years.

She found that some salmon populations are migrating earlier, with pink and chum changing fastest at seven days earlier per decade, while other species saw no change on average.

On average, fish are still managing to find the plankton they need, Ms. Wilson said, but climate change means they'll be matching up with the blooms less and less.

Major events such as the marine heat wave known as “The Blob," which persisted in the Pacific Ocean between 2013 and 2016, led to a “big mismatching event" and decreased young salmon survival, she said.

“And that was a harbinger for future climate change."

The research found that the changes in salmon migration were not predictable, with populations of the same species of salmon behaving differently.

Ms. Wilson said that could be a challenge for people in charge of managing and protecting the species, who often use one population as an indicator to predict how the rest of the species is managing.

“So, they might say, Chilko sockeye are not changing their migration timing so we don't have to worry about it. Let's move on to the next topic," she said.

“But those changes aren't predictable, through space and time."

The study's authors recommend avoiding a “one-size-fits-all approach" to management, she said. For those outside of research or salmon management, that confusing lack of predictability is something to be celebrated, Ms. Wilson said.

She said the fact that populations have responded differently is an example of biodiversity and a sign salmon have tools to deal with climate change.

“As a scientist, I can tell you if you want to preserve biodiversity, you need to preserve the habitat that underpins that biodiversity," she said.

“This unpredictability gives me a headache as a scientist trying to predict it. It might give a manager a headache trying to predict it. But it also protects salmon. So, we need to maintain that diversity if we want to keep having salmon in our ocean, and in our lakes and on our tables in future."

STORY TAGS:
salmon, Pacific salmon

Story Posted: 5/8/2023 9:36:24 AM

Source: SeafoodNews.com

‘Too Hot’ for Salmon: How Climate Change is Contributing to the Yukon Salmon Collapse

By Kavitha George
September 27, 2023

Scientists know one thing for sure about the collapse of Yukon River king and chum salmon: there’s more than one culprit.

“It’s really hard and probably unrealistic to just point your finger at one thing and say that’s what’s doing it,” said Jayde Ferguson, a fish pathologist with the Alaska Department of Fish and Game.

Researchers have identified many threats facing Yukon king and chum salmon, and those threats pop up at each stage of the salmon life cycle — when salmon hatch in freshwater streams, as they swim down the Yukon to the ocean, where they spend most of their lives and on their arduous journey back upriver to spawn and die.

Scientists think many of these threats are connected to climate change. Ferguson studies one of them, a parasite named ichthyophonus, at the Alaska Department of Fish and Game lab in Anchorage.

Under a microscope, salmon tissue infected with ichthyophonus appears mottled with big white dots, each one a single parasite that will grow, draining the fish’s resources and causing cells to die.

The parasite can’t harm humans, but it does kill fish. As salmon are making their journey upstream, they’re especially vulnerable.

“Their immune system is not as good, their bodies are just breaking down,” Ferguson said. “And so the parasite actually starts replicating then within the fish.”

Many infected fish don’t survive long enough to lay eggs.

“It’s almost like an arms race,” he said. “Can they get to the spawning ground before they die prematurely?”

Often, infected fish look completely normal from the outside, but their flesh will have a spotted or patchy white pattern where the parasite is growing inside. Importantly, infected fish aren’t good to eat.

Researchers saw a big spike in king ichthyophonus levels in the early 2000's, when around 30% of kings showed detectable levels. Levels dropped off for more than a decade. And then in 2020, the parasite was back. In recent years more than 40% of the Yukon king run has shown detectable levels of ichthyophonus.

It's unclear what's driving the spike. Other researchers have found that Yukon king salmon eggs are low in a vitamin called thiamine, which may cause weakened immune systems. Ferguson said warming river water might also play a role.

In fact, the Yukon is warming twice as fast as rivers further south as a result of climate change.

"It's crazy to be at the northern-range extent of salmon and talking about it being too hot for them," said Vanessa von Biela, a U.S. Geological Survey ecologist.

Salmon are cold-blooded, meaning they can't regulate their internal temperature. When the river gets above 65 degrees Fahrenheit, that's a problem.

When it's too hot, Von Biela said, the proteins that keep salmon cells functioning normally start to lose their shape. Warm water also makes it harder for their hearts to pump oxygen to their bodies.

"Their whole physiology, their whole body is designed to be in cold water," she said. "So when that water is warm, they just really hit these limits."

In a 2020 study, von Biela found that in an average year half of all Yukon kings swimming upriver have heat stress.

And it's not just the river that's warming. The ocean is heating up too. Climate change is bringing on more marine heat waves, or periods of severe ocean warming.

Jim Murphy is a NOAA fisheries biologist who has studied salmon at sea for 20 years. He said marine heat waves are disrupting the availability of salmon prey species. It's not totally clear what's happening at sea, Murphy said, but when he examines fish, one thing is clear: all salmon — but especially chum — are not getting enough to eat.

"Their stomach contents, the amount of food that they have in their stomach has been declining with warming temperatures," Murphy said. "They're likely feeding less in these warm years than in cooler years."

Scientists say all three of these factors — disease, heat waves, a lack of food — exacerbate each other. A fish that didn't eat enough is already weaker as it starts its journey up the Yukon. Add a parasite and heat stress, and that fish is a lot less likely to make it to its spawning grounds to reproduce, which means fewer fish next year.

Yukon River fish also have the longest salmon migration paths on Earth, traveling as much as 2,000 miles to get to their spawning grounds.

On top of all this, people along the river have another frustration — commercial fishing. Many residents point to Bering Sea pollock trawlers and a commercial salmon fishery along the Aleutians known as "Area M" that they argue are intercepting salmon at sea that would otherwise be bound for the Yukon.

"It kind of pisses me off a little bit thinking about it. Because it's the double standard," said Basil Larson, a subsistence fisherman and resident of Russian Mission, on the lower Yukon. He spoke to a weekly Yukon River Drainage Fisheries Association teleconference for river updates this summer.

Larson said it's infuriating to see commercial fishermen pulling in hundreds of thousands of chum each season while Alaska Native communities like Russian Mission have gone four summers barely able to fish.

"We've been getting restricted and restricted and restricted, and it's not even funny anymore," he said.

In recent years, Western Alaska fisheries groups and residents of the Yukon and Kuskokwim Rivers have clamored for tighter regulations at sea, like a cap on chum fishing in Area M and stricter chum bycatch limits in the Bering Sea — but so far, regulators haven't taken much action.

Meanwhile, commercial fishers point to data that show only a small percentage of the Bering Sea bycatch salmon and Area M salmon are headed to Western Alaska rivers.

But Murphy, with NOAA, said even though environmental factors driven by climate change are probably the main culprit for the Yukon collapse, right now, commercial fishing is the one contributor we have control over.

"Most people recognize that [commercial fishing] is not what is causing the collapse of these runs, necessarily. But it is something that can be regulated to mitigate the effects of declining production," Murphy said.

For now, Yukon River residents are in limbo, waiting to see if fish return. Murphy said it doesn't look like kings will come back anytime soon. But he said there's hope for chum.

A 2016-2019 Bering Sea heat wave hit chum salmon particularly hard, but since then, ocean temperatures have subsided and Murphy said, juvenile chum are starting to look healthier.

He said signs are good for a stronger chum run in 2024.

STORY TAGS:
Alaska, Yukon River, salmon, climate change

Story Posted: 9/27/2023 9:56:18 AM

Source: SeafoodNews.com

In Norway and other parts of the world, a climate-driven burgeoning of Pacific pink salmon populations is causing concern in places where the fish are not native and are considered an invasive species.Photo: Vestre Jakobselv jeger- og fiskerforening

Invasion? Unwanted pink salmon popping up in new areas in greater abundance as fish navigate warming oceans

Pink salmon are 'increasing in abundance in the northern Pacific Ocean, are accessing the Arctic Ocean, and have been rapidly expanding across the eastern Atlantic Ocean in recent years.'

25 August 2023 3:00 GMT *UPDATED 25 August 2023 3:00 GMT*
By **Rachel Sapin**
Pink salmon appear to be beneficiaries of climate change as ocean temperatures warm globally.

A global report published earlier this year by Canada's North Pacific Anadromous Fish Commission (NPAFC) reviewing pink salmon in the Pacific, Arctic, and Atlantic Oceans shows the fish, already the most widely distributed Pacific salmon species in the northern hemisphere, has expanded even in recent years.

In the Atlantic, pinks have likely produced self-sustaining populations in northern Norway, Scotland, and Iceland.

The report was put together as part of a Northern Hemisphere Pink Salmon Expert Group with input from several scientific agencies, including NOAA, the Alaska Department of Fish and Game (ADF&G), Fisheries and Oceans Canada (DFO), Inland Fisheries Ireland, Norway's Institute of Marine Research and Fisheries Management Scotland, Edinburgh, UK, among others.

Pink salmon are "increasing in abundance in the northern Pacific Ocean, are accessing the Arctic Ocean, and have been rapidly expanding across the eastern Atlantic Ocean in recent years," the report said.

"In the Atlantic, they have likely produced self-sustaining populations in northern Norway, Scotland, and Iceland and have been observed as far south as France."

Norway, which has been dealing this summer with its own invasion of pink salmon in its rivers, was the first country to implement an official strategy to eradicate pink salmon, citing the recent rapid expansion of pink salmon across the Atlantic.

Using various methods, over 100,000 pink salmon were estimated to have been removed from rivers across Norway in 2021, the report said. So far this year, more than 230,000 pink salmon have been captured and killed in Norwegian rivers, according to the Norwegian Environment Agency's overview.

While pink salmon have not developed a significant population, "vagrants have also been observed in eastern Canada from Nunavut to Newfoundland," the report said.

Over 100,000 pink salmon were estimated to have been removed from rivers across Norway in 2021. So far this year, more than 230,000 pink salmon have been captured and killed in Norwegian rivers.

Pink salmon may stray at higher rates than other species of Pacific salmon and also have a homing behavior that is "highly plastic," according to the report, which could account for some of its colonizing behavior.

The fish has a two-year life cycle, spent in both freshwater and marine environments. Due to this short life cycle, they respond rapidly to ecosystem change, according to NOAA.

"Pink salmon are also observed in the Arctic, with rapidly increasing catches from introduced and now self-sustaining populations in northwestern Russia and increasing trends in distribution and occurrence of presumed vagrants in the North American Arctic," the report said.

The fish appear to be benefitting from ocean warming, especially in northern regions, the report said. Ocean warming has contributed to recent range expansions in Arctic waters of North America as well as Asia and Europe where hatchery releases in Russian waters allowed pink salmon to become initially established.

"Warming temperatures may be fueling increased pink salmon production at their northern distributional extent, whereas those in the south are struggling with the cumulative impacts of environmental change," the report said.

Katie Howard, a lead scientist with ADF&G's Salmon Ocean Ecology Program, told **IntraFish** with the Bering Sea warming, there is also a lot less sea ice.

The lack of sea ice to contend with as well as evidence increasingly showing warmer sea temperatures benefit juvenile pink salmon's early marine growth appear to be aiding the species as it looks for new areas to spawn.

In the Eastern Bering Sea where Alaska salmon fisheries are located, temperatures were exceptionally warm for 2014, 2016, and 2019, nearing 11.5 degrees Celsius. Before 2013, those temperatures generally averaged between 9.5 and 10 degrees Celsius.

The community-based monitoring effort called Arctic Salmon led by Karen Dunmall, a biologist at Fisheries and Oceans Canada, has shown more salmon showing up in the Canadian Arctic, with warming water temperatures influencing survival and abundances of the salmon in freshwater habitats and shifting them to optimal marine habitats northward.

"Pink salmon are clearly on the move in the northern hemisphere," the global report emphasized. "Although they represent one species among a global redistribution of life, they also represent an opportunity to better understand broad-scale biodiversity change across our connected ocean."(Copyright)

State of Salmon is No Rosy Picture, UAF Professor Says

By Jenny Neyman
April 26, 2023

As wild salmon stocks continue to struggle across Alaska, advances in research are creating a clearer picture of the many factors contributing to lower returns, lowers sizes and lower survivability.

That's the good news, by the way — that there's a greater understanding of all the bad news impacting wild salmon stocks.

"If really the question is, 'Do I think that we're just sort of in a down cycle? The bright side is coming next year or some year down the road?' I don't think so," said Dr. Peter Westley, associate professor of fisheries with the University of Alaska Fairbanks College of Fisheries and Ocean Sciences.

Westley gave a "State of the Salmon" presentation at Kenai Peninsula College on Thursday night, followed by a panel discussion on the challenges salmon face, the research being done and what could help ensure healthy populations.

King salmon top the list of struggling salmon species across Alaska, with some of the lowest runs on record in the last few years. When the decline in kings became irrefutable about 10 years ago, it led to increased research into what could be going wrong.

Kings are challenged at all stages of the life cycle. In freshwater, kings in the Yukon are increasingly found to have a parasite that attacks cardiac tissue, making it harder to complete their very long journey upstream. Warming waters and heat stress can impact reproductive performance. And warmer waters can increase the activity of predators, like northern pike.

"Pike really like eating juvenile salmon," Westley said. "What's going to happen if things continue to warm up? So predators, like all cold-water fishes, as things heat up, their metabolism speeds up. Consumption's likely going to go up. So how many more salmon potentially are going to get eaten because of climate change?"

Life isn't easier out in the ocean. Ocean mortality is on the rise. With restrictions on harvesting marine mammals, there are more predators, like seals, sea lions and killer whales, looking to snack on salmon.

"There are likely more predators in the ocean now than there have been likely in thousands of years," Westley said.

And human harvest takes a toll. One of the questions to the panel was about salmon mortality as bycatch in the trawler industry. Westley says data provided by the trawl industry doesn't show enough salmon bycatch to make it the smoking gun in declining king stocks.

"The numbers just don't explain the dramatic decline in abundance," Westley said. "But it should not be taken as it doesn't matter. Even if you can't explain the decline in Yukon chinook, some Yukon chinook are being caught every year. And it's a fact that some fish are being caught every year by the pollock industry when the local people get none. And that is fundamentally unfair."

Even with declining king stocks, Westley says about 5 billion salmon are still released into the North Pacific Ocean, both wild and hatchery-produced fish. And they're all looking for food.

"And there's increasing evidence that there is competition and limited amount of capacity for feed and growth in the ocean" he said.

It's not a rosy picture. But in Alaska, at least, it might not be too late.

"The bright thing is that Alaska is still so unique, anywhere in the world, that the connections between salmon and people are still intact," Westley said. "And they are still intact here in Alaska because, at the core, we still have functioning intact watersheds and habitat that produces salmon."

STORY TAGS:
Alaska, salmon

Story Posted: 4/26/2023 8:09:43 AM

Source: SeafoodNews.com

Why sockeye flourish and chinook fail in Alaska's changing climate

July 27, 2023 by Liz Ruskin, Alaska Public Media

Salmon spread across the deck of a fishing vessel during last summer's record season in Bristol Bay. (Hope McKenney/KUCB)

University of Washington ecologist Daniel Schindler is at the mouth of a salmon stream at Lake Nerka, in Southwest Alaska. It's roiling with fish.

"They sort of pile up in balls of thousands of fish for a couple of weeks. I think that's when they're doing their final maturation," he said of the sockeye mob. "They're jostling with each other and splashing, occasionally jumping."

Schindler is in his 27th year of field work, studying Bristol Bay sockeye. This year is on par with the sockeye abundance Bristol Bay has seen in the last decade, he said, which is far higher than the historical average.

The unlikely hero of this story of plenty: climate change.

"We tend to think of climate warming is bad news for wild animals," he said. "But for sockeye, Bristol Bay warming has been good news."

For other salmon, climate change is a villain.

Chinook — or king — salmon are in terrible decline all over the state, and especially dire on the Yukon River. Meanwhile, sockeye — or reds — are having another banner year in Bristol Bay, and everywhere. Scientists say they don't know exactly why one salmon species is doing so well while the other is in crisis, but some clues are coming into sharper focus.

One key difference, Schindler said, is what kind of river habit each species needs.

Sockeye use lakes as their nurseries. Since the 1980s the water in those lakes has warmed significantly. The warmth stimulates plankton to reproduce more, and young sockeye eat plankton. Fifty years ago, Schindler said, a lot of sockeye spent two years in Lake Nerka before heading out to sea.

"And now they grow so fast that nearly all of them leave after a single year in freshwater, which is a reflection of the fact that the freshwater systems have become more productive," he said.

The science is a little murkier about what happens in the ocean, but Schindler said northern parts of the coastal ocean have been especially good for Alaska sockeye. There's apparently plenty for them to eat. and their predators seem to be elsewhere.

"So the Nushagak, the Igushik, even the Kuskokwim River, which never really had that many sockeye in it — all those populations have really exploded in the last decade," he said.

The chinook aren't so lucky. Changes in the ocean and the rivers have not been kind to kings, especially for those from Alaska's longest river, the Yukon.

"It's kind of this perfect storm of bad things happening for those particular chinook stocks," said Katie Howard, a state fisheries scientist.

Her research shows Yukon chinook who spawn during a warm-water year produce fewer juveniles. The water temperatures in the Yukon sometimes get to 68 degrees now.

“When water temperatures get that high, they just kind of shut down,” she said. “They’re a cold-water fish. They can’t really tolerate those temperatures very well.”

Heat stress is just one factor. Big rainfall can wash eggs from the gravel where female chinooks deposit them. There’s a parasite that leaves Yukon chinook riddled with “pus pockets,” Howard said. And there’s evidence that female chinooks may not be getting enough thiamine from their ocean diet, causing developmental problems in their eggs.

All of these things may stem from climate change, and kings are particularly vulnerable.

“Kings tend to spawn in really big rivers. That’s where the big king populations are,” said Erik Shoen, a fisheries biologist at the University of Alaska Fairbanks. The Yukon, for instance, has all kinds of conditions along its 1,982 miles, but every fish that spawns there has to go through the lower river.

“So if that lower main stem is unfavorable,” he said, “or if the Bering Sea just went through a heatwave and they have to make it into the lower main stem with less gas in the tank than they need to swim 1,000 miles plus — they’re in trouble.”

By comparison, the sockeye population of Bristol Bay thrive in the ocean and have multiple shorter rivers to climb, with more cool spots to take refuge in.

The Kuskokwim, like the Yukon, is a big river enduring a multi-year crash of chinook. Chum salmon are also in crisis. But there are more sockeye returning to it than ever before.

Near the peak of the Kuskokwim run “there will be anywhere from 20,000 to 40,000 sockeye salmon passing the sonar in one day,” said Kevin Whitworth,

executive director of the Kuskokwim River Inter-Tribal Fish Commission. “That’s a lot of protein.”

His organization is encouraging subsistence fishermen to take up dipnets to scoop up sockeye without hurting Kuskokwim chinook. The giant nets — sometimes 5 feet in diameter — are not a traditional tool for the region.

As part of the campaign, the fish commission posted a video on Facebook featuring testimonials from tribal elders.

“I wasn’t really expecting to get this much from dipping on the Kuskokwim,” said James Nicori, of Kwethluk. “Something new for me. And it works good.”

His brother-in-law, Martin Andrew, also from Kwethluk, said he overcame his skepticism by landing 20 sockeye.

Unfortunately, though, people on rivers like the Kuskokwim can’t just swap one salmon species for another. There still aren’t enough reds returning to replace the missing stocks on the Yukon and Kuskokwim.

And biologists say there never will be. The Kuskokwim and Yukon just don’t have enough suitable sockeye habitat to produce fish equal to the mass of salmon that used to return to them.

But with chinook too few to meet the need, sockeye are too plentiful to ignore.