

2020 Summer Season Fisheries Management

BY HOLLY CARROLL, ADF&G SUMMER SEASON YUKON AREA MANAGER

This season on the Yukon is likely to be remembered as one of the worst for subsistence harvest of salmon since 2000, when both Chinook and Chum salmon runs were the lowest on record. While the total Chinook run was better this year than it was back then, most households will have likely not met their needs for the winter. We won't know until the subsistence harvest surveys are complete, but in most communities the Chinook harvests for many households will likely be better than they were in 2014 and 2015 (our lowest harvest years on record), but worse than the last 2 years. The largest burden will be from the loss of chum harvest. On average, over 160,000 chum (combined summer and fall) are usually harvested and that will not be the case this year. As fellow Alaskans, we acknowledge the hardship faced this fishing season isn't just a major food security issue, it's a traditional and spiritual loss for the families who depend on the resource.

As fishery managers, our main role is to try to determine how large the runs are, and allow, at a minimum, the right number of fish to the spawning grounds to produce healthy future runs. To do that, we estimate (as soon as possible inseason- often before we have all the data) how much surplus is available for fishing.

Based on the counts at Pilot Station Sonar, we knew we would have to limit the harvest of Chinook salmon to less than half of what was taken last year. (Last year Chinook harvest was about 50,000 fish- the highest subsistence harvest since 2007). In years like this one, where there are not enough Chinook to provide the amount each community needs, we try to provide some fishing, but restrict it equitably across all the communities so that each community is taking the same fraction of what they need. We are aware this will not work on a household by household basis, some will do better than others. But with low run sizes, sharing and helping neighbors is more important than ever.

Chinook run abundance has been low with numbers of fish fluctuating for years. Though we've been able to consistently harvest some fish, we've been in conservation mode for this species for nearly 20 years. So many of us have been making sacrifices and conserving fish, and it's helped to meet our escapement goals, particularly between 2014 and 2018. Many of us have been choosing to take less (adjusting our needs), letting big fish go and putting more emphasis on taking chums. Though chum salmon are often there to make up

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HOW DO I BECOME A YRDFA MEMBER?

- Call 1-877-999-8566 Ext. 5
- Go to yukonsalmon.org
- Go to YRDFA's Facebook Page
- Fill out and mail in the form on page 11.

Protecting

and promoting

all healthy

wild fisheries

and cultures

along the

Yukon River

drainage.



Yukon River Region Calendar

NOVEMBER 2020

3rd - Election Day

17th – YRDFA Off-Season Teleconference at 1:00 p.m.

Nov. 30th-Dec. 11th (tentative) – North Pacific Fisheries Management Council meetings, virtual and teleconference

DECEMBER 2020

14th-18th – Alaska Conference on Environmental Management, virtual

15th-16th - YRDFA Annual Board Meeting - teleconference

17th – YRDFA-Yukon River Salmon Management Post-Season meeting, teleconference

JANUARY 2021

19th - YRDFA Off-Season Teleconference at 1:00 p.m.

Week of 25th – TBD – Yukon River Panel Post Season Meeting, teleconference

26th-28th - Alaska Marine Science Symposium

FEBRUARY 2021

1st-8th – North Pacific Fisheries Management Council meeting, Portland, OR

16th – YRDFA Off-Season Teleconference at 1:00 p.m.





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News from the Director

The winds blew cold from the East as I stood on the banks of the Andreafski River observing the elements around me. I knew the winds were not right for fishing, which I learned from my dad. The water was high and there were no beaches. I thought of the people catching a few fish during the first couple openings. As I stood there, I shuffled through my mind trying to recall the interviews I had with Elders before they had passed. Evan Polty and Angela Kozevnikoff of St. Mary's came to mind. As I walked around their fish camp, Evan explained the importance of looking at everything around me; the sky, the winds, the plants. They tell us things, indicators.

Remembering the visit I had with them, I wondered how the formations of the birds were as they flew in to reach their nesting grounds. Were the formations scattered or did the geese form a perfect "V" in the sky? This type of traditional knowledge would show how the fish would enter the river; scattered, mixed, or normal. Could we have used the traditional knowledge to indicate the next season runs?

2020 has been the most challenging year for everyone. During my first seven months with YRDFA we have faced a global pandemic, the lowest run of fall chum on record, and the need for a fisheries disaster declaration for the Yukon River. However bad the conditions may be, my intuition tells me to consider them as small challenges, not barriers, to ensure I'm doing everything I am capable of to serve the communities of the Yukon River. In times of hardship we come together to support one another and encourage each other to keep moving forward. More than ever we all will need to come together to encourage the State of Alaska to declare



a fisheries disaster for the Yukon River. As we continue to move forward in the process, a Facebook post from Dave Walker of Holy Cross echoes through my mind, "Truthfully, we have to eat the fish we caught as a treat, it's no longer part of our regular diet."

In times of hardship
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forward

YRDFA, in partnership with the Yukon Delta Fisheries Development Association will be requesting Governor Dunleavy to declare a fisheries disaster for the 2020 Yukon River fishing season. We have been having weekly meetings with the Yukon River Inter Tribal Fish Commission, Tanana Chiefs Conference, Alaska

Village Council Presidents, and Yukon Delta Fisheries Development Association to discuss plans on moving forward with the request and support for the Yukon River communities in this process. YRDFA will be collecting all resolutions and support letters that will be compiled and sent to the Office of the Governor. The signed resolutions and letters can be sent to serena@yukonsalmon.org or faxed to (907) 272-3142.

YRDFA has secured funding through the Office of Subsistence Management to host Off-Season teleconferences. With travel restrictions still in full swing we wanted to make sure we continue to provide a platform for our fishers to communicate with organizations and management during the Off-Season months. The Off-Season Teleconference will be structured a bit differently than the In-Season Salmon Management Teleconferences. Presentations will be given on a specific topic and there will be time for questions and discussions after each presentation. The first Off-Season Teleconference will be held on October 20, 2020 at 1:00 p.m. AKST and 2:00 p.m. Pacific Daylight Time Canada. We will be discussing the Fisheries Disaster Declaration Process.

I would like to end with a positive message to all the communities. Despite the struggles we have endured this year, I have been enjoying getting to know many of you through social media, emails, and phone calls. We received great feedback about the In-Season Salmon Management Teleconferences and I hope we will progress next season with even more participation from the Yukon River communities. I hope to meet everyone in person once we start coming together for our meetings, until then, piuraa (take care).

2020 Fall Season Fisheries Management Recap

WRITTEN BY JEFF ESTENSEN, ADF&G FALL SEASON YUKON AREA MANAGER

(Author's note: fall season assessment and management were ongoing at the time of this writing, and the information provided in this summary is preliminary and subject to change)

The fall chum salmon run in 2020, with an estimated run size of 200,000 fish. was the lowest on record. This year's poor fall chum salmon run was not expected. Entering the season, managers were anticipating a run size between 800,000 to 1.1 million fish. However, after observing the summer chum salmon run, which also came in below preseason expectations, it became apparent the fall chum salmon run was likewise going to be below expectations. This was based on the strong relationship between summer chum and fall chum salmon runs, a tool that allows biologists to revise the fall chum salmon projection prior to the season.

The fall season began with a revised fall chum salmon projection of less than 450,000 fish. In accordance with the Yukon River Fall Chum Salmon Management Plan, subsistence fishing was to be placed on regulatory fishing schedules as each district and subdistrict transitioned to fall season management. The projected fall chum salmon run was less than the 550,000 fish threshold required in the management plan to allow commercial fishing. There was no commercial salmon fishing during the fall season in 2020.

As the run progressed into early August, the fall chum salmon projection fell to less than 300,000 fish. Again, in accordance with the Yukon River Fall Chum Salmon Management Plan, at run sizes less than 300,000 fish, all fishing (including subsistence fishing) must close. By August 11, all fishing for fall chum salmon in the Yukon Area had

closed, and it remained closed for the remainder of the fall chum salmon run. Subsistence fishermen in Districts 1-4, and District 6, could use selective gear such as hook and line (downstream of Nulato only), live-release (manned) fish wheels and dip nets to target other fish such as coho salmon and non-salmon fish species. Subsistence fishermen in all districts could use gillnets with 4-inch or smaller mesh to target non-salmon species. Fall management is continuing and subsistence fishing restrictions are being relaxed as the end of the fall chum salmon run makes its way upriver.

Fall chum salmon run and escapement assessment is ongoing. Escapement projects operating this year to assess escapement are the mainstem Yukon River sonar near Eagle and the Fishing Branch River weir. Foot surveys for fall chum salmon will be conducted in the Delta River, a tributary of the Tanana River and aerial surveys of Nenana, Toklat and upper Tanana are being scheduled. The sonars operated by the USFWS in the Teedriinjik River (Chandalar River) and DFO in the upper Porcupine River did not operate in 2020 because of issues associated with COVID-19.

This year's poor chum salmon runs were not unique to the Yukon River. Chum salmon runs to the Kuskokwim River, and to rivers in Norton Sound, also came in below preseason projections. In general, salmon runs throughout the state were below expectations. The prime cause of this year's poor fall chum salmon run was a well below average return of four-year-old fish. A fall chum salmon run, on average, is comprised of 70 % four-year old fish, 27 % five-year old fish, and small percentages of three and six-year old fish. In 2020, fall chum salmon age composition consisted of 50% four-year-old and 46% five-year-old fish. Similarly, four-year old chum salmon also came back at below average levels in both the Kuskokwim River and in Norton Sound rivers. Four-year old chum salmon that returned in 2020 were from the 2016 brood year.

It is premature to speculate on next year's run except that the five-year old return may be weaker than average. The parent year for the four-year old fall chum salmon returning next year, 2017, had the third largest escapement on record. Initial management of fall chum salmon next season will again rely on the relationship with the returns of summer chum salmon to determine surpluses available for harvest.

Coho salmon continue entering the river, with the run appearing weaker and later than average this season. Coho salmon returning this year are primarily from the 2016 brood year. The preliminary estimate of coho salmon that passed the mainstem sonar near Pilot Station was 108,000 fish, which is below the historical median of 200,500 fish. An escapement goal for coho salmon is established for Delta Clearwater River, a tributary of the Tanana River. Boat surveys to determine if the escapement goal was met will be conducted in late October.

Fish and Game and Fish and Wildlife staff want to extend our best wishes and hopes that folks along the Yukon have a safe winter. We also want to thank everyone for their participation in the preseason and inseason teleconferences. The input and information managers receive during the teleconferences is invaluable. As always please feel free to contact myself (459-7217) or Gerald Maschmann (446-0454) with any questions or concerns.

Background photo by Gail Alstrom Beans, St. Mary

2020 Summer Season Fisheries Management... CONTINUED FROM FRONT PAGE

for less Chinook, this year proved once again that they too are a finite resource, and there will be years when we have to let them go by as well.

Despite this year's restrictive management actions, not enough Chinook made it to their spawning grounds throughout the drainage. The lower end of the goal with Canada is 42,500, and we are obligated to also provide a harvest share in addition to that for the First Nations fishermen. With the end of season count of about 33,000 fish at Eagle, we failed to meet those Treaty objectives. We don't know why, for the last two years, far fewer Canadian fish are making it to the border than we expect based on the inseason Pilot Station sonar counts. Last year we wondered if heat stress was causing more salmon to die before they made it to spawning grounds; it was local fishermen who alerted us to the chum salmon die-off. This year the water wasn't warm, but it was record-high

water levels for nearly the entire season. Having to navigate high water can wear fish out. Thanks to citizen science by Stan Zurray, we were also alerted to a much higher than normal infection rate of Ichthyophonus in Chinook caught near Rapids in the upper river. Could the combination of high/fast water and higher disease load cause increased mortality we don't usually see? We don't have these answers. But we will be expanding our research on Ichthyophonus to better monitor the situation in coming seasons.

I'm sure many people are asking: what will we do without enough fish? I don't know the answer to that question, but I hope that we will continue to come together as tribes, communities, stakeholder groups and biologists to try and answer these questions collectively, because reducing fish harvests seem to be a necessary part of our future in the coming years. Runs will come back strong, or they'll come back weak, and

it is up to all of us to adapt how we use those fish, and how we can reduce reliance on those fish when there simply aren't enough. What helps, and what gives me hope, is there were so many fishermen on the YRDFA calls sharing their knowledge and expertise. Multiple Elders spoke wisely, reminding us that while we may be wondering what we will do this year (with not enough fish), we need to think about future years, to ensure salmon come back for our future generations. I want to extend my thanks to YRDFA and the Yukon River Intertribal Fish Commission who do tireless work to bring us together. I want to also thank all the fishermen and women, who shared their knowledge on the calls, who called agency staff directly; your advice and wisdom is essential to the management process.

I wish all our Yukon families a successful winter hunting season, good health and safety for you and your loved ones.

Elections

WRITTEN BY SERENA FITKA

The Board of Directors shall be chosen from amongst a thirty (30) member delegation of the Association representative of the diverse users of salmon in the Yukon River drainage. To be eligible to be appointed to a delegate seat, a person can be nominated by the Board of Directors at the Annual meeting. A nominee must live and/or fish in the Yukon River districts and must live in the same district in which they are nominated for a seat. A nominee does not have to be a YRDFA member. Seated Board/Alternate members can self-nominate at the end of their term. All nominees will be notified of their nomination and YRDFA will receive confirmation of acceptance or rejection of the nomination.

The Board and Alternates elected from each district shall be selected based on a simple majority vote according to the district apportionment. Board members and alternates for each District are apportioned.

If you are interested in serving on the Delegation, please contact our office at 272-3141 or email our Director at serena@yukonsalmon.org

OPEN SEATS:

Y-1 Board Seat 1: 3 year term

Alakanuk, Emmonak, Nunam Igua, and Kotlik

Coastal Alternate Seat 1: 2 year term Hooper Bay, Scammon Bay, and Chevak

Y-1 Alternate Seat 1: 2 year term Alakanuk, Emmonak, Nunam Iqua, and Kotlik

> **Y-2 Alternate Seat 1**: 2 year term Mt. Village, Pitka's Point, St. Mary's, Pilot Station and Marshall

Y-5 Alternate Seat 1: *2 year term*Tanana, Rampart, Stevens Village, Beaver, Ft. Yukon, Chalkitsik, Venetie, Arctic Village, Circle, and Eagle

2 Canadian Seats - Appointed by YSSC Lower Yukon Young Flsher Seat: 2 year term Upper Yukon Young Fisher Seat: 2 year term

Pre-Season Yukon River Salmon Management Teleconference

WRITTEN BY SERENA FITKA

The Annual Pre-season meeting was conducted by teleconference due to the COVID-19 pandemic. The top priority for YRDFA was to coordinate alternative means to conduct the Pre-season meeting because of the importance of effective communication between local fishers and fisheries management. All Tribes, City Municipalities, and Canadian First Nations were invited to participate.

On May 12, 2020, 116 participants convened in a 150 minutes Pre-season teleconference and was broadcasted on KEAA Eagle Community Radio and KYUK Bethel. The top concern brought by the fishers was the ability to fish due to the current pandemic and potential limited assessment projects by ADF&G and USFWS.

An amendment to our project was approved to host a Post-season meeting in the Fall of 2020, so fishers and managers would be able to convene. At this time a face-to-face meeting is still not an option due to the rise in COVID-19 cases in Alaska. Planning for alternative methods are being coordinated by key personnel and will be announced in the coming months.

In-Season Salmon Management Teleconferences

WRITTEN BY SERENA FITKA

The Yukon River In-Season Salmon Management Teleconferences are funded by the Office of Subsistence Management Fisheries Resource Monitoring Program (FRMP). The purpose of the teleconferences is to provide a forum for people from the Yukon River to engage with fisheries managers on sharing information about subsistence harvests during the fishing season. The In-season teleconferences are held every Tuesday from June-August. We encourage and welcome participation throughout the Yukon River drainage. The teleconferences are set up for your voices to be heard.

This year we were able to extend our teleconferences by having two extra calls in May and two extended calls in September. This year has brought higher than average participation and duration of the calls. For the 2020 teleconference season, we averaged 120 minutes with 80 participants per call. The communities reported high water throughout the summer season, with little to no subsistence harvest for Chinook and chum salmon. Ichthyophonus was reported early on in the season by

fishers and remained prevalent in the salmon throughout the fishing season.

We were awarded additional funds to host monthly off-season teleconferences, which will be held the 3rd Tuesday of October, November, January, and February. Our first teleconference will be held on October 20th at 1:00 p.m. and we will be discussing the Fisheries Disaster Declaration process. Other monthly topics include a Bering Sea bycatch update from the North Pacific Fisheries Management Council and research presentations pertaining to the Yukon River.

Every year YRDFA sends posters to the City and Tribal offices to hang on public bulletin boards. We encourage participation from each community during the weekly calls and hope to have 100% participation from all Yukon River communities in June 2021. We thank the fishers, communities, and fishery managers for their participation and the Office of Subsistence Management for their support.

Ichthyophonus in Yukon River Chinook

WRITTEN BY STAN ZURAY

After 15 years of high ICH prevalence in the Yukon River, followed by 10 years of relatively low prevalence, heavy ICH reappeared – which was mentioned on YRDFA teleconferences by a number of Yukon River fishermen.

I was asked to write this article because of my involvement with this disease since the late 1980s, when I began working on it with Bill Fliris, a past YRDFA board member.

Ichthyophonus (ICH) has been a known fish disease for over a hundred years. It is a protozoan parasite closely related to fungi and is found in marine, freshwater, and anadromous fish worldwide. Yukon fishermen know it from the white spots in the heart muscle and in advanced cases, white blotches in the flesh and a terrible smell.

To see ICH spots consistently, very good eyesight or magnification is needed. Some spots are very small and a quick look can possibly show none, but after washing the heart off and a careful look, thousands can be seen. Fish with more than a hundred spots in the heart and any in the flesh will usually smell terrible to most people. Some use the smell test to check all their fish instead of looking at the heart.

Fishers I know deal with diseased fish differently. Some throw away all diseased fish or cut for dog food. Others still refuse to believe it exists or cut them all regardless. To me if a fish has just a few spots in the heart (under 10) and smells good initially, I mark it (cut tail fin) and hang it half a day as a filet, and if it doesn't start to smell as it dries I will strip it and hang it separate in the smokehouse. This seems to save many fish. The rest of my family cuts zero spot fish only.



A. Chinook heart showing advanced ICH on the surface and throughout the heart muscle. This is identified as a 1000+ spot heart.



B. White blotches and spots in a filet. These are seen in older, advanced infections and were common in 2020.

To evaluate the larger ICH situation some anecdotal and research history is necessary. There are lots of parasites in all our game meat and fish we eat, so should ICH even be a 'big deal' since it doesn't affect human health?

Bill Fliris, a fish wheel operator from Tanana, first saw Ichthyophonus in one Chinook salmon in 1986 but did not recognize it. The strips he made from it "did not dry right". Next year he saw several more cases, and in 1988 an AD-F&G pathologist, Joe Sullivan, confirmed it as ICH from a single diseased fish from Koyukuk. By that winter Bill Fliris, with help from the USFWS, sent samples to an Oregon lab, which were also confirmed as ICH. Bill said he was now throwing away 25% of his catch. His recollection

of the years after was "the amount of infection really shot up and looked like a total disaster". The down side of this scenario is that when fish are discarded because of ICH, they are replaced with healthy fish, thus further reducing the number of fish remaining in the spawning population – this is one reason ICH is a 'big deal'.

Dr. Richard Kocan, a pathologist from the Univ. of Washington, came to the Yukon in 1999 to work with Bill Fliris. He supervised a 5-year ICH project along the full length of the Yukon River from Emmonak to Whitehorse, as well as the Chena and Salcha rivers. In a 2001 report to the USFWS he concluded "Female Chinook salmon are more likely to be infected and have a higher prevalence of disease than males, and Ichthyophonus-infected females have a high probability of dying before they spawn". AD-F&G ran an ICH study from 2004 to 2006 to address among other issues whether ICH infected Chinook were spawning successfully and also were escapement goals affected. In a report to the Yukon River panel in 2005 ADF&G concluded "infected fish are spawning successfully" and "mortality before entering the spawning grounds does not affect the escapement goals". Starting in 2001 and for 14 years after, Stan Zuray monitored Chinook for fish size and ICH; the results of this study were published in a peer reviewed scientific journal (Zuray et al. 2012. Trans. Am. Fisheries Soc. 141: 615-623). Dr. Kocan, unable to secure more funding in Alaska, went on to publish 14 more ICH studies in fish disease journals from Washington State.

That brings us to 2020. The first fish cut at Rapids (mile 731) had ICH disease, which seemed unusual after 10 years of

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Yukon River In-Season Subsistence Salmon Surveys conducted safely in Covid-19 summer

BY CATHERINE MONCRIEFF

The In-season Subsistence Salmon Survey took place this summer in 10 Yukon River communities from June 1st through August 10th. Our team conducted 384 interviews with 146 households along the Yukon River. Locally hired surveyors interviewed willing, active fishers on an opportunistic basis. The interviews were anonymous and the results were summarized, by community, to protect fishers' identity. Teleconference participation by the surveyors increased this year as the surveyors called in all summer to update teleconference participants on fishing and other community activities.

The surveyor training event was held by teleconference in May due to the Covid-19 pandemic. The program benefited from the retention and longevity of our surveyors with nine of our ten surveyors having at least one year of experience and some as many as over ten years of experience. This greatly helped us overcome some of the pandemic challenges. The surveyors received YRDFA hoodies and cloth masks to wear while surveying. Other Coronavirus safe procedures discussed during our training were social distancing and following each communities' most recent recommended protocols.

We hired 11 surveyors in 10 communities this year. New surveyors included Alberta Walker in Anvik and Ted Hamilton in Alakanuk who stepped in to assist surveyor Pamela Cook in the second half of the season. This program includes local hire of one surveyor in 10 communities; which currently are; Alakanuk, Mountain Village, Marshall, Russian Mission, Anvik, Huslia, Ruby, Tanana, Fort Yukon, and Eagle.

On the final interview with each participant the surveyors ask, "Did you meet your needs this year?" The results are summarized in the table below. We do not have information for Alakanuk and Anvik

because the surveyors were not able to complete this form.

In Mountain Village most participants reported that the harvest was slow or very poor with not as many chum salmon. Five of nine participants were satisfied with the opportunity to fish and two thought it could have been improved.

In Marshall, five participants reported that they DID NOT meet their needs in 2020, four ALMOST met their needs and one fisher DID meet their needs for salmon. Two participants thought enough fishing opportunity was provided and two requested more Chinook salmon openings earlier in the season.

In Russian Mission, four participants reported that they did NOT meet their needs while three met their reduced needs, some by one-half of what they usually harvest and one participant ALMOST met their needs. Poor fishing in 2020 was reported by five participants and they attributed it to net restrictions, high water issues, and low numbers of fish. Five participants requested short openings on the first fish or on every pulse or consistent openings. Three participants requested relaxed restrictions sooner in the run.

In Ruby, one participant reported NOT meeting their needs, four met their needs, and two met three-fourths or enough of their needs. One fisher reported less fishing periods and four noted the large amount of drift in the river that complicated fishing. Four participants said more fishing opportunities were needed, two felt that the first Chinook salmon pulse should be protected or not fished, two requested more middle river openings and one requested longer openings earlier in the run.

In Huslia, two participants reported that salmon fishing was worse or much worse than last year. One participant noted the high water this year.

In Tanana/Rapids, three fishers reported met their needs while four reported NOT meeting their needs. Four fishers reported less fish in 2020 and as much as one-third less than 2019. Three noted the reduced fishing time in 2020 and six commented on the poor quality of fish, high levels of Ichthyophonus (ICH) and white-fleshed king salmon. All participants felt that fishing opportunity was about as good as possible, that the restrictions were necessary with the run size. This year was hard on Tanana/Rapids fishers and some may not fish next year due to this.

| YRDFA IN-SEASON SUBSISTENCE SALMON SURVEY 2020 RESULTS | | | | | |
|--|-----------------------------|-------------------|--|--|--|
| Community | Needs Met? | # of Participants | | | |
| Mountain Village | All NO | 9 | | | |
| Marshall | 1/2 NO | 10 | | | |
| Russian Mission | 1/2 NO | 8 | | | |
| Ruby | Most YES | 7 | | | |
| Huslia | All NO | 3 | | | |
| Tanana | 1/2 NO | 7 | | | |
| Fort Yukon | Most NO | 14 | | | |
| Eagle | 1/2 NO Kings All NO Chum | 5 | | | |

In Fort Yukon, 10 fishers reported NOT meeting their needs and four reported meeting their needs. Two fishers met their personal needs but didn't get to enough to share as they had hoped. For 2020, seven reported that they caught less fish, one reported poor-quality fish and three reported poorer fishing conditions such as high water than in 2019. The coronavirus pandemic did affect some fishers' ability to fish. Eight participants in Fort Yukon were NOT satisfied with opportunity, needed more fishing time due to river conditions or openings on the actual run, two wanted less net restrictions, and three were satisfied with the opportunity provided but were disappointed in the run size or fish numbers.

In Eagle, three participants reported

meeting their needs or reduced needs for Chinook salmon and two reported NOT meeting their needs for Chinook salmon. All five participants did NOT meet their needs for chum salmon this year. One participant reported a harvest of 30% less than last year, four reported 2020 to be worse in run numbers, one reported difficult fishing conditions and one reported poor-quality fish in 2020. Most participants (three) thought that opportunity was provided as much as possible for this year, although one participant did NOT think enough opportunity was offered. One participant thought that the timing of openings could be improved, another suggested a change to a quota system, one commented on the difficulty of fishing in the high water and three were concerned

about chum salmon and thought that there should be more restrictions on the lower and middle river.

The YRDFA In-season Subsistence Salmon Survey is an important communication tool that qualitatively informs managers how fishers in 10 key locations throughout the drainage are doing in-season, enabling managers to make timely decisions allowing the maximum number of fishers to meet their subsistence needs. We thank the surveyors, participants and communities for supporting this program with their participation and we welcome your feedback. This program is funded by the Office of Subsistence Management through the Fisheries Resource Monitoring Program (FRMP) through March 31, 2024. We thank them for their support.

The Future of Tribal Land will be Decided (Part 1 of 2)

BY SUZANNE LITTLE

72 million acres of public land are managed by the Bureau of Land Management (BLM) in Alaska and nearly 50 million acres is undergoing active planning in BLM's land planning processes. A Resource Management Plan (RMP) decides what uses can occur on public lands. The Federal Land Policy Management Act (FLPMA) requires the Bureau to meet a standard called Multiple Use and Sustained Yield for the land. Decisions in the RMP will last 20-30 years and the plan will identify where recreation, mining, oil & gas development, grazing and timber harvest will occur; as well as areas where development is not desired in watershed, wildlife and fish habitat conservation measures.

There are three current planning areas: The Central Yukon Plan, the Bering Sea-Western Interior plan and the National Petroleum Reserve-Alaska plan. One-third of the area of the state of Alaska is in active BLM planning areas. ★ Indicates an active planning area on the map below.

Central Yukon / Utility Corridor Plan

Thirteen of the twenty-five communities in the Central Yukon planning area have over 1 million acres of BLM land within 50 miles of the community. Decisions made in the plan for the Central Yukon's 13.1 million acres will significantly affect communities living with the land. This planning area also includes



the Trans-Alaska Pipeline corridor and Alaska's Dalton Highway, the only road access to the North Slope. The Draft RMP is expected in late 2020 or early 2021.

Bering Sea-Western Interior Plan

Encompassing land in the lower stretches of the Yukon River and the whole Kuskokwim River, the Bering Sea-Western Interior Resource Management Plan will decide the future of 13.5 million acres of BLM-managed land. Approximately 15,000 people live in 60+ communities in this planning area. Seventeen planning area communities have over 1 million acres of BLM land within 50 miles and will be seriously affected by decisions made in the plan. The FINAL RMP is expected in late 2020.

Ichthyophonus in Yukon River Chinook... CONTINUED FROM PAGE 7

low prevalence (2% to 10%). Soon we were getting prevalences of 20%, 30% and 40% and it continued to increase as the season went on, ending with 100% ICH for me and 5 other fishermen who were also keeping track. I have all sorts of anecdotal info like this. Although this was not a controlled, full season, random sampling study, two things can be confidently said; First is that of 36 random, mid-season samples sent to a lab for histology (microscopic exam), 36% of males and 57% of females tested positive for ICH. The second is that more 1000 spot ICH hearts were found on each of two different days than occurred in entire years when ICH was very high (2004 and 2006) when

about 1000 hearts were looked at each of those two years. In 2020 about 150 hearts were examined. The most severe ICH disease of any monitored year (but not necessarily the highest prevalence) was observed in 2020.

In the past some people thought when monitored ICH approached about 20% it might be prudent to limit Chinook fishing. As one researcher intimately knowledgeable with the ICH situation said (with irony) "No sense getting ahead of the problem when we can wait until it's out of control – again".

YRDFA's First Annual Auction

BY ALMERIA ALCANTRA, YRDFA INTERN

Since we are not able to come together for our meeting we have decided to generate a live Facebook Auction. The auction will take place on Facebook during the week of November 30th. We will post more details as the date draws nearer. At this time we are soliciting donations to auction. Serena Fitka, YRDFA Director, will be donating a weekend getaway at her bed and breakfast in Valdez, Alaska. She will also be donating a pair of beaded top gloves she will make.

Any donations will be greatly appreciated for YRDFA's First Annual Auction!



NEW PROJECT

They Told Us There'd Come a Time...

A Catalog of Elders' Warnings

YRDFA is gearing up to begin a new project reviewing Yukon River archival Traditional Ecological Knowledge materials describing conservation practices and warnings of potential declines in salmon housed at the University of Alaska Fairbanks Alaska and Polar Regions Collections and Archives and other sources. We will partner with the Tanana Chiefs Conference's young adult Emerging Leaders and receive training support from the UAF Library Archives and the TCC Communications staff. After the archival research, we will do follow-up interviews with local Elders with the support of the Denakkanaaga. Finally, we will produce outreach materials that summarize and share our results. This project is generously funded by the North Pacific Research Board and we thank them. It takes place from December 2020 through November 2023.

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