FISHERIES UPDATE FOR THE WEEK OF JUNE 7-14, 2021. Report #3

Compiled by George Pappas - (907) 317-2165, <u>George_Pappas@fws.gov</u> Office of Subsistence Management, USFWS.

The purpose of the weekly fisheries update is to provide the reader with an overall summary of the status of subsistence related fisheries throughout the state of Alaska. The target audience is the Federal Subsistence Board and its Staff Committee. The report was compiled with the assistance of the Federal in-season managers and OSM staff that provided weekly updated information by the close of business on Friday of the reporting week. My goal is to have the report posted on the Office of Subsistence Management website by the close of business the following Monday. Web links have been included to provide additional information. You may obtain additional information on a fishery of particular interest by contacting the inseason manager, provided contacts, follow the provided web links, or contact me.

SOUTHEAST ALASKA

Sitka and Hoonah Area – Justin Koller, Forest Service, Tongass National Forest Justin Koller, (907)747-4297 jpkoller@fs.fed.us

Herring – A commercial herring fishery occurred in Sitka Sound in 2021. Please see this <u>summary of</u> <u>Sitka Sound herring 2021</u>. Also, <u>summary of southeast Alaska herring 2021</u>.

Falls Lake - The Forest Service and the Organized Village of Kake operate the Falls Lake trap and video net weir which will be operational the last week of June. The final escapement estimate in 2020 was 800 Sockeye Salmon while the final subsistence and sport harvest in the marine terminal area was estimated to be 253. Subsistence harvest accounted for 96% of terminal area harvest.

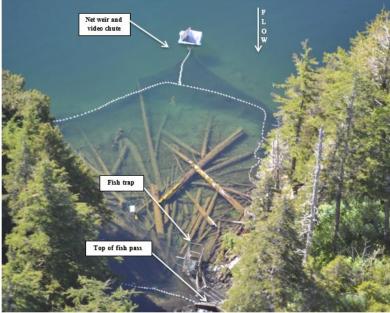


Figure 1. Aerial photo of the Falls Lake outlet illustrating the typical location of weir equipment.

1

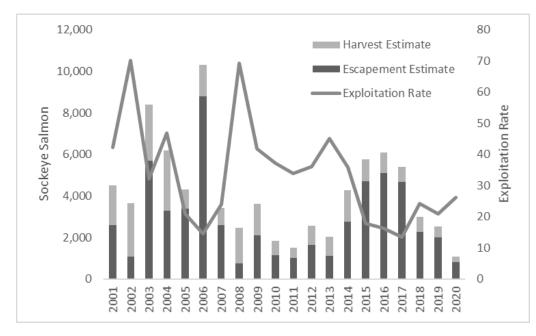


Figure 2. Escapement plus harvest equals total terminal run of Sockeye Salmon at Falls Lake, 2001-2020.

Klag Bay - The Sitka Tribe of Alaska operates the Sockeye Salmon monitoring weir at Klag Bay which is scheduled to be operational the last week in June. In 2020, approximately 4,122 sockeye migrated past the weir while an estimated 1,599 were harvested in the marine terminal area subsistence and sport fishery. Subsistence harvest accounted for over 99% of terminal area harvest.

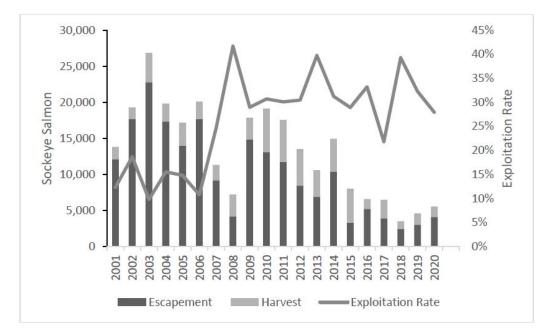


Figure 3. Creel survey harvest and escapement for Klag Lake Sockeye Salmon, 2001-2020.

Redoubt Lake - The Forest Service operates the Redoubt Lake weir which will be operational June 15. In 2020, an estimated 41,279 Sockeye Salmon passed through the weir into Redoubt Lake. On July 22, in accordance with the Redoubt Lake Management Plan, the individual/household subsistence sockeye possession limit was set at 25 and the individual/household subsistence sockeye annual limit was set at 100. Over 40,000 sockeye were harvested in Sitka Sound commercial fishery openings throughout the season. Most of these sockeye are probably of Redoubt origin.

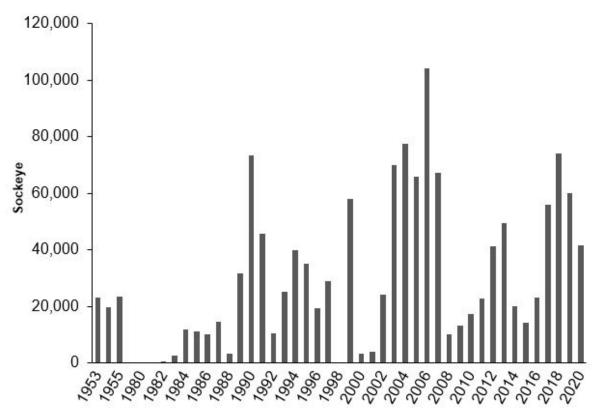


Figure 4. Annual Sockeye Salmon expanded escapement into Redoubt Lake for years with data: 1953 to 1955, 1982 to 1997, and 1999 to 2019. The weir was not operated in 1998.

Gut Bay - The Forest Service and the Organized Village of Kake monitor escapement and harvest of Gut Bay Sockeye Salmon. Gut Bay is located south of Falls Lake on Baranof Island and an important source of sockeye for the village of Kake. Very little is known about the magnitude of this sockeye run. In 2019, 881 sockeye were counted at the weir and about 200 were harvested in the state subsistence fishery. The Gut Bay project has been postponed until 2022 due to staffing shortages.

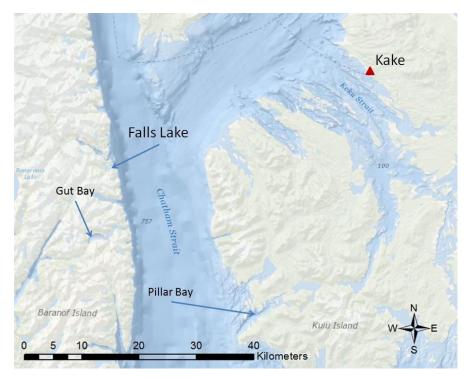


Figure 5. Location of Gut Bay in relation to Falls Lake and the village of Kake

In-season Harvest and Effort Estimates

Petersburg and Wrangell Area – Robert Cross, Forest Service, Tongass National Forest Robert Cross, (907)772-5944 robert.cross@usda.gov

The pre-season terminal run forecast for large Chinook Salmon in the Stikine River is 9,900 fish. This forecast is below the bottom range of the 14,000 to 28,000 fish goal. Directed commercial, sport, and subsistence fisheries in the area have been closed to protect this return. Currently, all drift gillnet, purse seine and non-terminal harvest area troll fisheries are closed in the area.

The 2021 Federal Stikine River Sockeye Salmon subsistence fishery will begin June 21. The 2021 preseason Sockeye Salmon forecast is 56,000 fish, with 28,000 Tahltan and 28,000 Mainstem fish. The 2020 Sockeye Salmon forecast was 103,400 fish, which included 64,500 Tahltan Lake and 38,900 Mainstem Sockeye. The escapement objective for Tahltan bound Sockeye Salmon is 18,000 and 30,000 for Mainstem fish. The 2021 forecast is below the escapement objective for the mainstem and may result in a season closure.

Yakutat, Juneau, and Admiralty areas of Northern Southeast Alaska - Jake Musslewhite (907-789-6256; jacob.g.musslewhite@usda.gov), Forest Service, Tongass National Forest June 11, 2021

The Sockeye Salmon subsistence fisheries will be starting this month in the Admiralty and Juneau areas. The Forest Service and the Hoonah Indian Association will be installing the Neva Lake video weir around June 16. The Sitkoh Lake weir will be installed in early July by a Forest Service and Angoon Community Association crew. Both projects will use underwater video to record Sockeye Salmon and other fish swimming through a pair of weirs, and the video will be transmitted to an offsite computer. Project personnel will use motion-triggered recordings to make daily counts of salmon swimming through the weirs.

The first purse seine and gillnet fisheries of the year will begin on June 20, with the Pt. Augusta and Hidden Falls areas open for seining, and Districts 11 and 15 open for gillnetting. These early openings are mainly directed at hatchery chum salmon returns, and are the season's first indications of run strength for these stocks.

In Yakutat, the Situk River weir was installed on May 13, and is currently focused on counting Steelhead moving downstream after their spawning migration. As of June 9, a total of 869 Steelhead had been counted downstream, with more continuing to be counted on their way upstream. Later in the season, the focus will shift to counting Chinook and Sockeye. Due to conservation concerns for Chinook in the area, the mouth of Situk River and nearby areas have been closed to subsistence and commercial fishing until further notice. These fisheries may reopen if weir counts indicate that escapement goals have been met. Subsistence fishermen are reminded that when fishing in the Situk River they are required to attend their gillnet at all times, and to report and turn over any Chinook caught to the Yakutat Fish and Game office. The preseason forecast for Situk Chinook is for a total run of 1,559 large fish, which would meet the escapement goal of 450-1,050 fish as long as conservation measures are in place.

Prince of Wales and Ketchikan District Area – TBA, Forest Service, Tongass National Forest. (907) 826-1649

First weekly report will be in mid-June.

Southeast Alaska Web Links

Tongass National Forest News Room <u>http://www.fs.usda.gov/news/tongass/news-events</u>

Federal Subsistence Fisheries Regulations for Southeastern Alaska Area <u>http://www.doi.gov/subsistence/regulation/fish_shell/upload/Southeast.pdf</u>

ADF&G Sport and Personal Use Fishing News Release and Emergency Order Link <u>http://www.adfg.alaska.gov/sf/EONR/index.cfm?ADFG=region.R1</u>

ADF&G Commercial Fisheries News Release and Emergency Order Link <u>http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main</u>

Weekly ADF&G Sport Fishing Reports for Southeast Alaska http://www.adfg.alaska.gov/sf/FishingReports/index.cfm?ADFG=R1.home

> Statewide ADF&G Fish counts <u>http://www.adfg.alaska.gov/sf/FishCounts/</u>

SOUTHCENTRAL ALASKA

PRINCE WILLIAM SOUND – COPPER RIVER

Copper River, 6/11/2021 Update – Dave Sarafin, Wrangell-St. Elias National Park and Preserve (WRST), (907) 822-7281, dave_sarafin@nps.gov

In January of 2021, the Alaska Department of Fish and Game (ADFG) provided preseason forecasts of 37,000 Copper River Chinook Salmon and 1,296,000 wild stock Copper River Sockeye Salmon. Relative to recent 10-year averages, these forecasts are 22% below average for Chinook Salmon and 37% below average for Sockeye Salmon. In early May, Federal and State fisheries managers met to discuss this forecast, anticipated early season management strategies, and plans for maintaining communications with local stakeholders regarding the run strength assessments and management actions throughout the season.

Management actions of the ADFG have limited commercial fishing in the Copper River District in response to low numbers of returning salmon. Three 12-hour open commercial fishing periods occurred during the month of May and one 12-hour period occurred on June 9. These limited fishing opportunities have resulted in very low season total commercial harvest for the Copper River District, which is reported as 90,733 Sockeye Salmon and 5,778 Chinook Salmon.

The ADFG sonar at Miles Lake (located just downstream of the Million Dollar Bridge in the Copper River) began limited operation of only the North Bank sonar on May 12. Salmon passage was first recorded on May 19. Both banks are now in operation, as the South Bank began operating on May 26. After a relatively slow start, sonar passage has improved substantially during the last week. Passage rates have exceeded the daily management objectives from June 3 through June 10 and were more than double each days' objective for June 7, 8, and 9. As of June 10, 263,893 salmon have been estimated migrating upstream for the season. This estimate is 99% of the cumulative management objective of 267,647 for this date of the season. A daily estimate of 18,456 salmon migrated past the sonar on June 10.

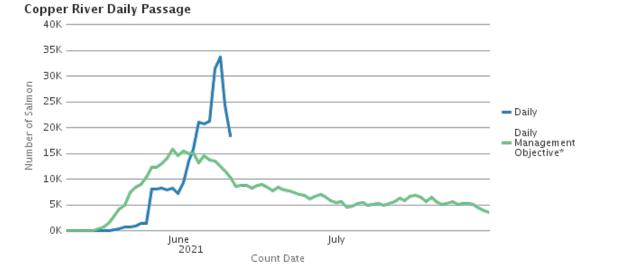
The Native Village of Eyak (NVE) Baird Canyon fish wheels captured and tagged 1,228 Chinook Salmon through June 9. This total capture number for this date of the season is very low, relative to historical levels. The upriver fish wheels at Canyon Creek have captured and examined 425 Chinook salmon through June 9, of which, 26 were recaptured fish that had been tagged at the downstream wheels.

Performance in the commercial fishery and inriver sonar salmon passage estimates are the primary early season assessments of the Sockeye Salmon return to the Copper River. Although fishing opportunities and harvest in the commercial fishery have been quite limited and poor, based on long-term average run timing,

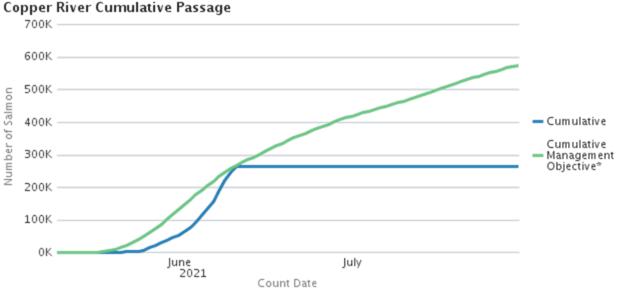
the assessment of inriver Sockeye Salmon run strength is presently on track to meet ADFG management objectives, which are designed to provide harvest opportunities to both Federal subsistence and other State upriver users, as well as to achieve the sustainable escapement goal for Sockeye Salmon. Federal managers met this week with the Ahtna Intertribal Resource Commission (AITRC), the Cheesh'na Tribal Council, and State managers to discuss concerns of local subsistence users about low numbers of salmon reaching upper sections of the Glennallen Subdistrict.

As with Sockeye Salmon, fisheries managers are also monitoring early season assessments of Chinook Salmon run strength; primary indicators are commercial harvest rates and data from the Chinook Salmon in river abundance project operated by NVE. Additional insight is gained from the recent application of updated technology at the Miles Lake sonar site to provide species apportionment data. Although still early in the season, assessments are indicative of a weak return.

Federal managers will continue to monitor run strength indices to evaluate the need for appropriate fisheries management actions in the Copper River Drainage. No Federal Special Actions have been issued by the inseason manager this season.



2021 Upper Copper River Salmon Passage at Miles Lake Sonar through June 10



Copper River Cumulative Passage

*Management objectives are based on historical run-timing to achieve the in-river goal.

The State subsistence fishery in the Glennallen Subdistrict opened on June 1. The State personal use fishery in the Chitina Subdistrict opened on Thursday, June 10 for a 96-hour fishing period through Sunday, June 13. After a 2-day closure, it is scheduled to reopen on Wednesday, June 16 for a 120-hour fishing period and close on Sunday June 20.

The Federal subsistence fisheries in the Chitina Subdistrict, the Glennallen Subdistrict, and the Batzulnetas area opened on May 15 and are expected to remain open through September 30. Through the Office of Subsistence Management (OSM) Federal subsistence permit database website, one hundred and thirty-one (131) Chitina Subdistrict permits, two hundred and five (205) Glennallen Subdistrict permits, and one (1) Batzulnetas area permit have been issued to date.

The Tanada Creek salmon weir located just downstream of Batzulnetas will not operate this season.

Links: ADFG Miles Lake daily sonar estimates http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareacopperriver.salmon_escapement

NVE's Chinook Escapement Monitoring project in the Copper River http://eyak.fishscan.com/Summary/DailySummary.aspx

ADFG Copper River Inseason Commercial Harvest Estimates http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareacopperriver.harvestsummary

ADFG Sport Fish Emergency Orders and News Releases https://www.adfg.alaska.gov/sf/EONR/index.cfm?ADFG=main.home

PWS and Copper River Delta – Milo Burcham, Chugach National Forest, Cordova. 6 June 2017. (907) 424-4759 <u>mburcham@fs.fed.us</u>

Reporting will not commence for a few more weeks. Cordova Area Federal subsistence fisheries on the Copper River Delta normally are a late season focus.

COOK INLET AREA – Kenneth Gates, Senior Fish Biologist, Kenai Fish and Wildlife Conservation Office (907) 260-0132 Kenneth_Gates@FWS.GOV

The 2021 subsistence dip net fisheries for salmon will begin on the Kenai and Kasilof rivers June 15 and June 16, respectively. Regulatory dates for the Kasilof River community gillnet fishery are from June 16 through August 15. Regulatory periods for the Kenai River community gillnet fishery are from July 1 through August 15 and from September 10 - 30.

Seasons for subsistence fishing with rod and reel are the same as for the taking of fish under Alaska sport fishing regulations. Most of the initial rod and reel subsistence effort will be focused at Sockeye Salmon in the Upper Kenai and Russian Rivers which opens on June 11.

A total of 358 permits have been issued to date to residents of Cooper Landing, Hope, and Ninilchik. Permit types include a general fishing permit and household permit. All permits were issued through the U.S. Postal Service. No special actions have been issued to date. However, early-run Chinook Salmon returning to the Kenai River are being monitored and are tracking similar to 2018 which realized an escapement of 3,000 fish which is below the minimum OEG of 3,900 early-run Chinook Salmon.

Fish counts at some Alaska Department of Fish and Game-operated assessment projects are available online at

http://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.home

Kodiak Island Area – Michael Brady, Refuge Manager, - Kodiak NWR

(907) 487-0226 or <u>michael_brady@fws.gov</u> or Kevin Van Hatten (907) 487-0230 Kevin_VanHatten@fws.gov

No Reports Submitted This Week. Refuge Manager issued Fisheries Special Action (9RS-01-21) to close Federal public waters of Woman's Bay to the take of Sockeye Salmon by all users to protect the Buskin River Sockeye Salmon return which is escaping at substantially lower numbers than required by established goals.

Federal Subsistence Fisheries Regulations for Kodiak Area <u>http://alaska.fws.gov/asm/pdf/fishregs13/kodiak.pdf</u>

FISHERIES UPDATE FOR THE WEEK OF June 14, 2021.

BRISTOL BAY, CHIGNIK, ALASKA PENINSULA, and ALEUTIAN ISLANDS – Jonathon Gerken Fisheries Branch Chief Anchorage Fish and Wildlife Field Office

These areas support abundant returns of salmon, particularly Sockeye Salmon; as well as some of the largest commercial fisheries for salmon in Alaska. All of the assessments of salmon returns are conducted by the Alaska Department of Fish and Game, and provide the basis for any inseason assessment and management.

Bristol Bay:

The 2021 Bristol Bay Sockeye Salmon run is forecast to be approximately 50 million fish for the nine river systems: Kvichak, Alagnak, Naknek, Egegik, Ugashik, Wood, Igushik, Nushagak, and Togiak. Subsistence fishing is open in all districts but will close around commercial fishing openings, commercial fishing openings have been announced for the Igushik Section of the Nushagak District, Naknek-Kvichak, Egegik, and Ugashik Districts.

Escapement projects are being installed throughout the region. The Sockeye Salmon sustainable escapement goals (SEG) for Bristol Bay systems are:

Escapement Goals:

Locupennenn oou	
Kvichak	SEG = 2,000,000 - 10,000,000
Alagnak	SEG = 320,000 minimum
Naknek	SEG = 800,000 - 2,000,000
Egegik	SEG = 800,000 - 2,000,000
Ugashik	SEG = 500,000 - 1,400,000
Wood River	SEG = 700,000 - 1,800,000
Igushik	SEG = 150,000 - 400,000
Nushagak	_SEG = 370,000 - 900,000

6/12/2021 Opportunity (Drift & Set Nets)

Nushagak	SEG = 55,000 – 270,000 Chinook Salmon
Togiak	SEG = 150,000 - 270,000

Chignik:

The Chignik River weir was fish tight on June 1, and the cumulative weir count as of June 12 is 14,036 Sockeye Salmon. The interim escapement objective for June 10 is 45,000 to 55,000 fish. The 2021 Sockeye Salmon forecasted total-run size for the Chignik River Management Area (CMA) is 875,000 fish with a harvest estimate of 165,000 Sockeye Salmon. The CMA is composed of five fishing districts: Eastern, Central, Chignik Bay, Western, and Perryville. Subsistence fishing activity is occurring within Chignik Lake and has been reported as slow with low harvests.

Escapement Goals:	BEG = 350,000 - 450,000
Early Run Sockeye Salmon/ Black Lake	SEG = 200,000 - 400,000
Late Run Sockeye Salmon/ Chignik Lake	-10,000 in August and 10,000 in September in addition to
-In-river Goal	minimum escapement objectives
Chinook Salmon	BEG = 1,300 - 2,700
Pink Salmon – Even year	SEG = 170,000 - 280,000
Chum Salmon	SEG = 45,000 - 110,000

Alaska Peninsula:

Several Sockeye Salmon escapements (mostly on the north peninsula) are monitored with weirs including Nelson, Bear, Sandy, Ilnik, McLees, and Orzinski systems. Preseason forecasts are made only for the Nelson River and late-run (post July 31) Bear Lake stocks. The 2021 Sockeye Salmon run size projections are 333,000 fish for the Nelson River and 363,000 fish for late-run Bear Lake. Commercial fishing opening were announced for the South Unimak and Shumagin Islands.

North Peninsula Management Area Escapement Goals:Nelson RiverBEG = 97,000 - 219,000, current escapement = 2Late-run Bear LakeBEG = 117,000 - 195,000, current escapement = 1,301

South Peninsula Management Area Escapement Counts Ilnik River current escapement = 8,709 Orzinski River current escapement = 9 Sandy River current escapement = 0 McLees River current escapement = 22

Aleutian Islands. All fisheries are forecast to meet escapement goals and provide harvest opportunity.

> *Federal Subsistence Fisheries Regulations for Bristol Bay Area* http://www.doi.gov/subsistence/regulation/fish_shell/upload/Bristol.pdf

> *Federal Subsistence Fisheries Regulations for Chignik Area* http://www.doi.gov/subsistence/regulation/fish_shell/upload/chignik.pdf

Southcentral Alaska Web Links

Federal Subsistence Management Fisheries News Releases

http://www.doi.gov/subsistence/news/fishing/index.cfm

ADF&G Sport and Personal Use Fishing News Release and Emergency Order link <u>http://www.adfg.alaska.gov/index.cfm?adfg=fishingSportFishingInfo.R2</u>

> ADF&G Commercial Fisheries News Release and Emergency Order Link <u>http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main</u>

> *Weekly ADF&G Sport Fishing Reports for Southcentral Alaska* <u>http://www.adfg.alaska.gov/sf/FishingReports/index.cfm?ADFG=R2.Home</u>

> > Statewide ADF&G Fish counts: <u>http://www.adfg.alaska.gov/sf/FishCounts/</u>

Yukon River – Keith Herron Ivy, Biologist USFWS Fairbanks Office. June 6 – June 12, 2021

Federal Manager, Holly Carroll (907) 351-3029, <u>holly_carroll@fws.gov</u>, Keith Herron Ivy, (907) 312-3397, keith_ivy@fws.gov, Gerald Maschmann, (907) 456-0406, <u>Gerald_Maschmann@fws.gov</u>

Summer Season Outlook and Management Strategies

The 2021 drainage-wide Chinook salmon outlook is for a run size of 102,000 to 189,000 fish. The 2021 run may be as small as 2012 and 2013; despite very restricted fishing in those years, the Canadian Chinook salmon escapement objectives were not met. Because of the poor projected run size, front end closures are required until in-season run strength estimates indicate a harvestable surplus beyond escapement needs. This will likely require closures through the midpoint of the run.

The Summer Chum Salmon outlook is for a below average run size which should be large enough to provide for escapement and subsistence uses with a surplus of up to half a million Summer Chum Salmon available for commercial harvest. However, commercial harvest opportunity will depend upon available markets and the strength of the overlapping Chinook Salmon run.

Assessment Information

The Lower Yukon Test Fishery (LYTF) catches have remained slow since the first large group of Chinook were caught, but it's still early to expect the first pulse. Still no large numbers of chum have been seen in LYTF, and this is normal for this time of year. The Pilot Station sonar project cumulative passage through June 10 is 13,546 Chinook Salmon, and 2,345 Summer Chum salmon.

The latest fish passage and escapement estimates can be found at ADF&G's website at <u>www.adfg.alaska.gov/yukonfishcounts</u>

Management Actions

Until more assessment data becomes available, management decisions will be consistent with the preseason projections and management strategy. Subsistence salmon fishing is closed in the southern Coastal District, District 1, District 2, District 3 and the Innoko River. Subsistence salmon fishing closed in Lower Subdistrict 4-A at 8 p.m. Thursday, June 10. Subsistence salmon fishing will close in Upper Subdistrict 4-A at 8 p.m. Sunday, June 13, and in the Koyukuk River at 8 p.m. Monday, June 14. This was announced in Advisory Announcement #6

(http://www.adfg.alaska.gov/static/applications/dcfnewsrelease/1268776839.pdf)

Subsistence salmon fishing will close in Subdistricts 5-A, 5-B, 5-C at 8 p.m. Saturday, June 19. This was announced in Advisory Announcement #7

(http://www.adfg.alaska.gov/static/applications/dcfnewsrelease/1269792193.pdf)

Subsistence salmon fishing in Subdistrict 5-D and Subdistrict 6-A, 6-B is open 24 hours per day, seven days per week with 7.5-inch or less mesh gillnet gear and fishwheels.

The personal use fishery in Subdistrict 6-C is open on its regulatory schedule of two, 42-hour periods per week restricted to 7.5-inch or less mesh gillnet gear and fishwheels.

During subsistence salmon fishing closures, 4-inch or smaller mesh gillnets are restricted to a maximum length of 60 feet. This gear may be used to target non-Salmon species.

For detailed information on management actions and assessment, subscribe to ADF&G advisory announcements at <u>http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.search</u>

Consultation

The second YRDFA teleconference occurred on June 8. Participation was light, with very few fishermen reporting from above the Tanana Drainage, and none from Canada. Some fisherman reported catch of chinook before fishing closures and others reported non-salmon fishing for species such as whitefish and sheefish. Call in to the YRDFA weekly teleconferences each Tuesday at 1:00 pm at the following number: 1-800-315-6338, Passcode: 98566#.

Get announcements and more by liking the ADF&G Yukon River Facebook page at: www.facebook.com/YukonRiverFishingADFG/

KUSKOKWIM RIVER

In Season Manager – Boyd Blihovde, Refuge Manager, Yukon Delta National Wildlife Refuge Contact Vernon_Born@fws.gov (907) 543-3151 or Aaron Mosses <u>Aaron_Moses@fws.gov</u> (907) 545-3252

Kuskokwim River In-season Harvest and Effort Estimates

6/12/2021 Subsistence Harvest Opportunity (Drift & Set Nets)

Opportunity Time Period: 6:00 AM - 6:00 PM (12 Hours)

Area Covered by Estimates: Tuntutuliak ${\longleftrightarrow}$ Akiak

Contact Person(s): Kevin Whitworth (kevinwhitworth@kritfc.org), Katie Russell (krussell@nativecouncil.org) Special Action #: 3-KS-01-21

Special Action: https://fws.gov/uploadedFiles/3-KS-01-21_Final_5.7.2021.pdf







Data Sources

 TABLE 1. The number and percent of fisher interviews conducted by location and organization.

Data Source	Interviews	Percent
Bethel Boat Harbor (ONC)	121	54%
Other Villages (BSFA/KRITFC)	76	34%
Bethel Area Fish Camps (ONC)	29	13%
Total	226	100%

Of these interviews, 215 were from drift nets and 11 were from set nets.

 TABLE 2. The time each flight was conducted and fishers counted each flight.

Time Inform	Nets Counted			
Start Time	End Time	Hours	Drift	Set
9:17 AM	10:50 AM	1.55	274	19
3:00 PM	4:30 PM	1.50	250	24

Effort Estimates

- An estimated **381** total drift boat trips occurred.
 - An estimated **64%** of the trips counted on flight 2 were also counted on flight 1.
 - An estimated **18** trips were not counted during any flight.
- An estimated 23 total set net trips occurred.

Harvest Estimates

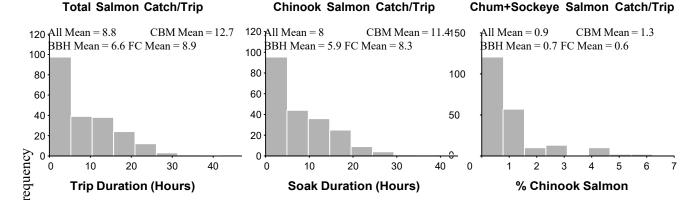
- An estimated total of 3,640 (3,190 4,110) salmon were harvested.
 - An estimated total of 3,220 (2,830 3,630) Chinook salmon were harvested.
 - An estimated total of 70 (40 90) chum salmon were harvested.
 - An estimated total of 340 (240 460) sockeye salmon were harvested.

Harvest by set nets accounted for an estimated **150 (50 – 280)** total salmon (80% Chinook salmon,7% chum salmon, and 13% sockeye salmon).

TABLE 3. Summary of relevant quantities by river stratum (area) for drift nets. Numbers in parentheses are 95% confidence intervals.

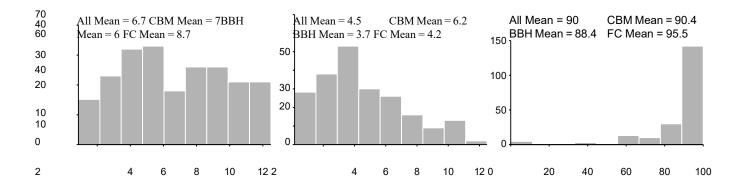
Stratum			Estimated Harvest					
	Interviews	Effort Est.	Chinook	Chum	Sockeye	Total		
	19	80	670 (460 – 940)	20 (0-30)	140 (60 – 250)	830 (570 - 1,140)		
Johnson R. ←→ Napaskiak	55	65	750 (580 – 920)	10 (0 – 20)	80 (50 – 130)	850 (670 - 1,030)		
Napaskiak ←→ Akiachak	140	197	1,400 (1,160 – 1,650)	30 (10-40)	80 (60 – 110)	1,510 (1,250 – 1,780)		
Akiachak ←→ Akiak	1	39	280 (230 - 330)	0 (0 - 10)	20 (10-20)	300 (250 – 360)		
All	215	381	3,100 (2,740 - 3,510)	60 (40 - 80)	330 (230 - 440)	3,480 (3,050 - 3,950)		

FIGURE 1. Distributions of relevant quantities from all completed trips using drift nets. The mean quantity by primary data source is shown in the top right; BBH = Bethel Boat Harbor (ONC), CBM = Other Villages (BSFA/KRITFC), FC = Bethel Area Fish Camps (ONC).



In-season Harvest and Effort Estimates

6/12/2021 Opportunity (Drift & Set Nets)



Appendix: Detailed Interview Summaries

Column Meanings

- Area: the area of the river the trip occurred in
- N: the number of interviews with usable information in each area
- Min: the minimum value among trips in each area
- 25%: the value that 25% of trips fell below in each area
- Mean: the average value across trips in each area
- 75%: the value that 75% of trips fell below in each area
- Max: the maximum value among trips in each area

Information is for drift net trips only.

TABLE A1. Summary of drift net catch rate of Chinook salmon by fishing area (salmon per 150 feet of net per hour).

Area	Ν	Min	25%	Mean	75%	Мах
Tuntutuliak ← Johnson R.	18	0.2	0.8	1.2	1.5	2.9
Johnson R.	54	0	1.2	2.3	3.7	7.1
Napaskiak	140	0	0.7	1.8	2.4	10
Akiachak	1	1.9	1.9	1.9	1.9	1.9
All →	213	0	0.8	1.9	2.5	10

TABLE A2. Summary of drift net catch per trip of Chinook salmon by fishing area.

Area	Ν	Min	25%	Mean	75%	Max
Tuntutuliak ← Johnson R.	19	1	4	8	13	22
Johnson R.	55	0	3	10	15	44
Napaskiak	140	0	2	7	11	33
Akiachak	1	19	19	19	19	19
All →	215	0	2	8	12	44

TABLE A3. Summary of drift net catch rate of chum+sockeye salmon by fishing area (salmon per 150 feet of net per hour).

Area	Ν	Min	25%	Mean	75%	Мах
Tuntutuliak ← Johnson R.	18	0	0	0.3	0.3	1.2
Johnson R.	54	0	0	0.3	0.4	2.7
Napaskiak	140	0	0	0.1	0.2	1.5
Akiachak	1	0	0	0	0	0
All →	213	0	0	0.2	0.3	2.7

 TABLE A4. Summary of drift net catch per trip of chum+sockeye salmon by fishing area.

Area		Ν	Min	25%	Mean	75%	Max
Tuntutuliak	← Johnson R.	19	0	0	2	4	7
Johnson R.		55	0	0	1	1	6
Napaskiak	←→ Akiachak	140	0	0	1	1	4
Akiachak	←→ Akiak	1	0	0	0	0	0
All	\rightarrow	215	0	0	1	1	7

Area	Ν	Min	25%	Mean	75%	Мах
Tuntutuliak ← Johnson R.	19	42%	78%	86%	100%	100%
Johnson R. ⇄ 🛛 Napaskiak	55	0%	79%	86%	100%	100%
Napaskiak	140	0%	89%	92%	100%	100%
Akiachak	1	100%	100%	100%	100%	100%
All →	215	0%	86%	90%	100%	100%

TABLE A5. Summary of drift net percent composition of Chinook salmon by fishing area.

TABLE A6. Summary of drift net active fishing hours by fishing area.

Area			Ν	Min	25%	Mean	75%	Мах
Tuntutuliak	\leftarrow	Johnson R.	18	1	2.9	4.6	5.3	9
Johnson R.	\rightarrow	Napaskiak	54	0.2	2.6	5.1	7.4	10.5
Napaskiak	$\stackrel{\longrightarrow}{\longleftarrow}$	Akiachak	140	0.3	2.2	4.2	5.8	12
Akiachak	$\stackrel{\longrightarrow}{\longleftarrow}$	Akiak	1	10	10	10	10	10
All	\rightarrow		213	0.2	2.3	4.5	6	12

TABLE A7. Summary of drift net total trip duration by fishing area.

Area			N Mi	in 25º	%	
	Mean	1	75%	Max		
Tuntutuliak \rightarrow	Johnson	R. 1	9 3.8	7.4		
	8.6		10.4	12.5		
Johnson R. — 🛛 Napaskia	k 55	0.9	4.4	6.7	9.5	11.5
Napaskiak	140	1	3.6	6.4	9	12.2
Akiachak	1	10.8	10.8	10.8	10.8	10.8
All →	215	0.9	4	6.7	9.3	12.5

TABLE A8. Summary of drift net trip start time by fishing area.

Area		N Max	Min	25%	Mean	75%
Tuntutuliak ←	Johnson R. 1:00 PM	19	4:00 AM	6:00 AM	7:31 AM	8:45 AM
Johnson R ⇔ →	Napaskiak 3:30 PM	55	6:00 AM	6:30 AM	8:56 AM	11:00 AM
Napaskiak– →	Akiachak 5:00 PM	140	5:00 AM	6:00 AM	8:55 AM	11:00 AM
Akiachak–	Akiak	1	8:00 AM	8:00 AM	8:00 AM	8:00 AM
\rightarrow	8:00 AM					
All		215 5:00	4:00 AM PM	6:15 AM	8:47 AM	10:30 AM

Area		N Max	Min	25%	Mean	75%
Tuntutuliak ←	Johnson R. 6:29 PM	19	1:08 PM	3:15 PM	4:06 PM	5:00 PM
Johnson R. 之 →	Napaskiak 6:36 PM	55	8:52 AM	2:28 PM	3:38 PM	5:15 PM
Napaskiak ← →	Akiachak 7:17 PM	140	7:30 AM	1:23 PM	3:16 PM	5:42 PM
Akiachak⊷	Akiak	1	6:48 PM	6:48 PM	6:48 PM	6:48 PM
\rightarrow	6:48 PM					
All		215 7:17	7:30 AM PM	1:57 PM	3:27 PM	5:41 PM

TABLE A9. Summary of drift net trip end time by fishing area.

Yukon-Kuskokwim-Interior Alaska Web Links

Federal Subsistence Management Fisheries News Releases: http://www.doi.gov/subsistence/news/fishing/index.cfm

Federal Subsistence Fisheries Regulations for Yukon–Northern Area http://www.doi.gov/subsistence/regulation/fish_shell/upload/Yukon.pdf

Federal Subsistence Fisheries Regulations for Kuskokwim Area http://www.doi.gov/subsistence/regulation/fish_shell/upload/Kusko.pdf

ADF&G Sport and Personal Use Fishing News Release and Emergency Order link: http://www.adfg.alaska.gov/sf/EONR/index.cfm?ADFG=region.R3

ADF&G Commercial Fisheries News Release and Emergency Order Link: <u>http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main</u>

Weekly ADF&G Sport Fishing Reports for Interior Alaska: <u>http://www.adfg.alaska.gov/sf/FishingReports/index.cfm?ADFG=R3.home</u>

> *Statewide ADF&G Fish counts:* <u>http://www.adfg.alaska.gov/sf/FishCounts/</u>

Northwest Alaska – Ken Adkisson, National Park Service, Nome. (907) 443-6104 ken adkisson@nps.gov

Fishing season is almost here. Subsistence fishing schedules will soon be in effect in Southern Norton Sound and the Nome Subdistrict.

Norton Sound District

Southern Norton Sound Subdistricts 6 (Unalakleet) and 5 (Shaktoolik)

Subsistence Fishing:

In the Unalakleet River beginning on June 16, the subsistence gillnet fishing schedule is from 8 a.m. Mondays until 8 p.m. Tuesdays and from 8 a.m. Fridays until 8 p.m. Saturdays. There are no gillnet mesh size restrictions. This schedule is in effect through July 15 unless changed by emergency order.

The first closure to subsistence fishing in the Unalakleet River will be at midnight on the evening of June 15. Except for the scheduled subsistence fishing periods, the Unalakleet River drainage from downstream of the North River and the North River drainage will close to all subsistence fishing, except for dip nets and cast nets. Any king salmon caught in a cast net or dip net must be immediately returned to the water.

The subsistence net fishing closure will extend out to the marine waters within 500 yards of the Unalakleet River mouth. Also, gillnets with a mesh size greater than 4 inches will not be allowed in the Unalakleet River upstream of the North River confluence except during the subsistence fishing periods. Set gillnets with a mesh size of 4 inches or less may continue to be fished daily in the Unalakleet River drainage upstream of the North River confluence.

From June 16, the marine waters of Subdistricts 5 and 6, the Shaktoolik and Unalakleet Subdistricts, will be open to subsistence fishing for two 48-hour periods each week. The marine water subsistence fishing schedule will be from 6:00 p.m. Mondays until 6:00 p.m. Wednesdays and from 6:00 p.m. Thursdays until 6:00 p.m. Saturdays. There are no gillnet mesh size restrictions. This schedule is in effect through July 15 unless changed by emergency order.

Beach seining for salmon in all Subdistrict 5 and 6 waters is closed until July 1, and then will be open through August 10 with mesh size restricted to $4\frac{1}{2}$ inches or smaller and all king salmon must be released to the water immediately unharmed.

Subdistrict 1 (Nome)

Subsistence Fishing:

By Alaska Board of Fisheries regulation on June 15 the summer subsistence salmon gillnet fishing schedule is in effect in the Nome Subdistrict. The marine waters east of Cape Nome will continue to be open 7 days a week. All Nome Subdistrict freshwater subsistence areas and the marine waters west of Cape Nome will be open to gillnet fishing for five days each week from 6 p.m. Wednesday until 6 p.m. Monday. Effective June 15, beach seining for salmon will be open in all subsistence areas of the Nome Subdistrict whenever subsistence gillnet fishing is open. Unless closed by emergency order beach seining will remain open during gillnet fishing periods through August 15. Dip nets and cast nets can also be used any time gillnet fishing is open.

The first-time nets must be removed from all fresh-water Nome Subdistrict subsistence areas will be at midnight on Monday evening, June 14. Likewise, all nets must be removed from Nome Subdistrict marine waters west of Cape Nome on Monday evening, June 14, at midnight.

Also, effective June 15 all gillnet and beach seine fishing upstream of Boulder Creek on the Sinuk River will be closed. This closure is in effect to protect migrating sockeye salmon that hold in the Sinuk River bridge area before reaching the spawning grounds.

The first-time nets must be removed from all fresh-water Nome Subdistrict subsistence areas will be at midnight on Monday evening, June 14. Likewise, all nets must be removed from Nome Subdistrict marine waters west of Cape Nome on Monday evening, June 14, at midnight.

Also, effective June 15 all gillnet and beach seine fishing upstream of Boulder Creek on the Sinuk River will be closed. This closure is in effect to protect migrating sockeye salmon that hold in the Sinuk River bridge area before reaching the spawning grounds.

http://alaska.fws.gov/asm/pdf/fishregs11/norton.pdf