Fishery Management Report No. 25-32

Fishery Management Report for Sport Fisheries in the Yukon Management Area, 2024

by

Lisa Stuby

October 2025

Alaska Department of Fish and Game **Divisions of Sport Fish and Commercial Fisheries**

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figures or figure captions.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat or long
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	′
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	″
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

FISHERY MANAGEMENT REPORT NO. 25-32

FISHERY MANAGEMENT REPORT FOR SPORT FISHERIES IN THE YUKON MANAGEMENT AREA, 2024

by
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ABSTRACT

Information specific to sport fisheries in the Yukon Management Area in 2024 and preliminary information for 2025 are presented. Estimates of fishing effort, harvest, and catch are summarized through the 2024 season. Major fisheries within the area are detailed, including descriptions of the performance of these fisheries, regulatory actions by the Alaska Board of Fisheries, social and biological issues, and descriptions of current and past research and management activities. In summary, the waters of the Yukon Management Area supported approximately 12,379 angler-days of sport fishing in 2024. No salmon were harvested, and nonsalmon species such as Arctic grayling, northern pike, Dolly Varden, sheefish, burbot, and whitefish accounted for all of the total harvest and 94% of the total catch. Due to low returns, the Chinook and chum salmon sport fisheries were closed in 2024 and 2025. The sport fishery for coho salmon was closed in 2024 and did not close in 2025 due to higher-than-anticipated returns despite a poor 2021 parent year. Since 2011, emergency orders have been issued to restrict and/or close the sport fishery for Chinook salmon due to lower-than-average run sizes and restrictions and closures to subsistence fishing opportunities.

Keywords: Yukon River, Anvik River, Andreafsky River, Nowitna River, Dall River, Innoko River, Beaver Creek, Birch Creek, Fortymile River, Nome Creek, Chinook salmon, chum salmon, coho salmon, Arctic grayling, inconnu, sheefish, northern pike, sport fisheries, sport fishery management, fisheries management plans

EXECUTIVE SUMMARY

This document provides a wide array of information specific to the sport fishing opportunities and sport fisheries that exist within the Yukon Management Area (YMA). The YMA encompasses the entire Yukon River drainage, excluding the Tanana River, which makes up a separate management area. This report has been written to provide information on this management area to the Alaska Board of Fisheries (BOF), which will address proposals specific to the Yukon River at the 18–22 November 2025 meeting. However, no proposals specific to the sport fisheries in the YMA have been proposed. Information specific to the primary sport fisheries within the YMA during 2024 and data from 2025 are presented, along with the recent history of these fisheries and past BOF decisions that have affected them.

INTRODUCTION

This report provides information for the YMA and is one of a series of reports annually updating fisheries management information within Region III. The report is provided for the BOF, Fish and Game Advisory Committees, the general public, and other interested parties. It presents a description of area fisheries; a summary of the fisheries effort, harvest, and catch; fisheries assessment information; and the management strategies that are developed from that information.

The mission of the Division of Sport Fish (DSF) of the Alaska Department of Fish and Game (ADF&G) is to protect and improve State of Alaska (SOA) fishery resources. This is achieved by managing for sustainable yield of wild stocks of sport fish, providing diverse sport fishing opportunities, and providing information to assist the BOF in optimizing social and economic benefits from sport fisheries. In order to implement these goals, DSF has a fisheries management process in place.

A regional review is conducted annually, during which the status of important area fisheries is considered and research needs are identified. Fisheries stock assessment and research projects are developed, scheduled, and implemented to meet information needs identified by fisheries managers. Projects are planned within a formal operational planning process. Biological information gathered from these research projects is combined with effort information and input

from user groups to assess the need for and development of fisheries management plans, and to propose regulatory strategies.

Many DSF management and research activities are funded by Fish and Game and Federal Aid in Fisheries Restoration funds. Fish and Game funds are derived from the sale of state sport fishing licenses. Federal Aid funds are derived from federal taxes on fishing tackle and equipment established by the Federal Aid in Sport Fish Restoration Act (also referred to as the Dingell-Johnson Act). The Dingell-Johnson funds are provided to the states at a match of up to 3-to-1 with the Fish and Game funds. Additional funding specified for providing, protecting, and managing access to fish and game is provided through a tax on boat gas and equipment established by the Wallop-Breaux Act. Other peripheral funding sources may include contracts with various government agencies and the private sector, or, in a few cases, SOA general funds.

This area management report provides information regarding the YMA and its fisheries for 2024, with preliminary information from the 2025 season. This report is organized into 2 primary sections: a management area overview, including a description of the management area and a summary of effort, harvest, and catch for the area; and a section on significant area fisheries, including specific harvest and catch by species and geographical region or drainage.

Sport fishing effort and harvest of sport fish species in Alaska have been estimated and reported annually since 1977 using a mail survey. The Alaska Sport Fishing Survey (commonly referred to as the Statewide Harvest Survey [SWHS]) is designed to provide estimates of effort, harvest, and catch on a site-by-site basis. It is not designed to provide estimates of effort directed towards a single species. Species-specific catch-per-unit-effort (CPUE) information can seldom be derived from the survey data. A questionnaire is mailed to a stratified random sample of households containing at least one individual with a valid fishing license (resident or nonresident). Currently, information gathered from the survey includes participation (number of anglers and days fished), number of fish caught, and number harvested by species and site for guided and unguided fishing. These surveys estimate the number of angler-days of fishing effort expended by sport anglers fishing Alaskan waters, as well as the sport harvest. Survey results for each year are not available until the following year; hence, the results for 2025 will not be available until fall 2026. Additionally, for some management areas, creel surveys have been selectively used to verify the mail survey for fisheries of interest or for fisheries that require more detailed information or inseason management.

The utility of SWHS estimates depends on the number of responses received for a given site (Mills and Howe 1992). In general, estimates from smaller fisheries with low participation are less precise than those of larger fisheries with high participation. Therefore, the following guidelines were implemented for evaluating survey data:

1. Estimates based on fewer than 12 responses should not be used other than to document that sport fishing occurred.
2. Estimates based on 12 to 29 responses can be useful in indicating relative numbers of fish harvested or caught, and for assessing long-term trends.
3. Estimates based on 30 or more responses are generally representative of levels of fishing effort, catch, and harvest.

More recently, SWHS estimates were compared to onsite creel surveys for estimates from 1996 to 2006, and using the coefficient of variation (CV) of harvest estimates was recommended to determine the precision of estimates (Clark 2009). CVs of harvest estimates from the SWHS

should be 0.30 or less before using the estimates for evaluating long-term trends, and CVs of 0.20 or less before use in stock assessments.

SECTION I: YUKON MANAGEMENT AREA OVERVIEW

YUKON MANAGEMENT AREA DESCRIPTION

The YMA is part of DSF Region III, which encompasses approximately 80% of the landmass of Alaska (Figure 1). The region contains over 442,500 mi² (1,146,000 km²) of land, some of the state's largest river systems (Yukon, Kuskokwim, Colville, Noatak, and the Upper Copper and Upper Susitna River drainages), thousands of lakes and streams, and thousands of miles of coastline. Regional coastline boundaries extend from Cape Newenham in the southwest, around all of western, northwestern, and northern Alaska to the Canadian border on the Arctic Ocean. Demographically, Region III is sparsely populated, with the most densely populated centers located in the Tanana River Valley, with Fairbanks as the largest community.

DSF Region III is divided into 5 fisheries management areas (Figure 1):

- Northwestern/North Slope Management Area (Norton Sound, Seward Peninsula, Kotzebue Sound, and North Slope drainages)
- Yukon Management Area (the Yukon River drainage excluding the Tanana River drainage; Figure 2)
- Upper Copper/Upper Susitna Management Area (the Copper River drainage upstream of Canyon Creek and Haley Creek, and the Susitna River drainage above the Oshetna River)
- Tanana River Management Area (the Tanana River drainage)
- Kuskokwim–Goodnews Management Area (the entire Kuskokwim River drainage and Kuskokwim Bay drainages).

The YMA includes all of the Yukon River drainage in the United States (Figure 2), except for the Tanana River drainage, which is managed separately in the Tanana River Management Area (TRMA). The YMA consists of approximately 407,858 km^2 (157,475 mi^2) of extremely varied topography, climate, and zoogeography. The Yukon River is the largest river in Alaska, and its drainage is the 5th largest in North America. The YMA is sparsely populated, and communities are invariably located near water because of the importance of fish and/or marine mammals as food sources.

Access to most of the area is limited to boat, snowmachine, and air travel. Sport fisheries occur throughout the YMA but are especially concentrated in accessible streams off of 3 major highways. Road access to the Yukon River is provided by the Dalton Highway, which ends at Prudhoe Bay; the Steese Highway, which ends at Circle; and the Taylor Highway (no winter maintenance), which ends at Eagle. The Elliott Highway is not within the YMA but connects Fairbanks to the Dalton Highway and to the Yukon River across from Tanana via the Tofty Road, which begins in Manley Hot Springs. Also, the Alaska Highway connects Fairbanks to the Taylor Highway (Figure 2).

Land ownership and jurisdiction fragments YMA into a complex mosaic. The federal government is the major land manager with jurisdiction over lands in 3 National Parks and Preserves (Yukon–Charley, Gates of the Arctic, and Wrangell–St. Elias), 5 National Wildlife Refuges (Yukon Flats, Kanuti, Koyukuk, Nowitna, and Innoko), the White Mountains National Recreation Area (WMNRA), the Steese National Conservation Area, and 8 Wild and Scenic Rivers (Alatna,

Andreafsky, Charley, Fortymile, John, and Koyukuk Rivers, and Beaver and Birch Creeks), as well as lands managed by the federal Bureau of Land Management (BLM). Lands held by the SOA, Native corporations, and other private landowners make up the remaining landmass.

FISHERY RESOURCES

Virtually all freshwater and migratory fish species sought by anglers in Alaska are available in the YMA. All populations are wild because there is presently no enhancement of fish populations in the YMA. Five species of Pacific salmon are available in tributaries of the Yukon River, including Chinook (king) salmon *Oncorhynchus tshawytscha*, coho salmon *O. kisutch*, chum salmon *O. keta*, sockeye salmon *O. nerka*, and pink salmon *O. gorbuscha*. Due to low returns, sport fishing for Chinook salmon in the YMA has been closed or restricted since 2011 (Appendix A1). Similar closures or restrictions have also taken place for chum (2020–2025, Appendix A2) and coho salmon (2021–2024, Appendix A3) due to recent low returns.

Unique opportunities to fish for freshwater resident species in remote wilderness settings exist throughout the YMA. Exceptionally large northern pike *Esox lucius* and sheefish (inconnu) *Stenodus leucichthys* are available throughout the drainage, but are mainly targeted in the Innoko, Dall, and Nowitna River drainages and at the mouths of major tributaries that drain into the Yukon River. The most popular fisheries in the YMA target Arctic grayling, *Thymallus arcticus*, and northern pike. Smaller fisheries target Dolly Varden *Salvelinus malma*, burbot *Lota lota*, lake trout *Salvelinus namaycush*, and whitefish *Coregonus*.

Other User Groups – Subsistence and Commercial Fisheries

The BOF identifies fish stocks or portions of stocks or populations that are customarily and traditionally taken or used for subsistence. Under Alaska's subsistence statute, the BOF identifies fish stocks that support subsistence fisheries and, if there is a harvestable surplus of these stocks, adopts regulations that provide reasonable opportunities for these subsistence uses to take place. Whenever it is necessary to restrict harvests, subsistence fisheries have a preference over other uses of the fish resources (AS 16.05.258).

Residents of rural communities within the YMA harvest a substantial number of fish and game resources for subsistence use, and fishing is usually conducted with more efficient gear types such as fish wheels and gillnets. In 2000 and 2019, hook-and-line fishing gear was added to the types of legal subsistence fishing gear in the lower portion of the Yukon River drainage up to and including the Nulato River. During the 2023 BOF meeting, areas that allow hook-and-line fishing gear were extended to include the entire Yukon River drainage, excluding the Tanana River drainage, Birch Creek upstream of the Steese Highway Bridge, the Dall River drainage, and the Koyukuk River subsistence permit area (5 AAC 0.1.220(h); Figures 2 and 3). Beaver and Nome Creeks in the WMNRA that are also located within the Fairbanks Nonsubsistence Area (5 AAC 99.015(4); Figures 2 and 4) are also excluded. Because all Alaskans qualify for access to subsistence resources, resident anglers could choose to fish with hook and line in these areas under subsistence regulations instead of sport fish regulations. Consequently, harvest estimates of sport-caught fish from rural Alaska are generally lower because local residents usually fish for subsistence uses.

Commercial fisheries have provided an economic base for income and employment in many local communities, particularly those in the Lower Yukon River. Prior to 2021, most of these fisheries focused on summer and fall chum and coho salmon (Ransbury et al. 2022). Commercial harvests

in the Alaska portion of the Yukon River for summer and fall chum and coho salmon exceeded 1 million fish during 2014–2018 (Ransbury et al. 2022). However, with the low runs of summer and fall chum and coho salmon, the commercial salmon fisheries were closed during 2021–2025. Currently, there are small commercial fisheries for whitefish and lamprey *Lampetra camtschatica*, in the Lower Yukon River. The only personal use (nonsubsistence) fishery in the Yukon River drainage is located near Fairbanks on the Tanana River (Ransbury et al. 2022). There has not been a directed commercial fishery on Chinook salmon since 2008, and any harvest has been incidental.

Salmon, particularly Chinook salmon, are important subsistence resources throughout the Yukon River drainage. The current amounts necessary for subsistence (ANS) of Chinook salmon in the Alaska portion of the Yukon River drainage were designated by the BOF in January 2013 to be 45,500–66,704 Chinook salmon (5 AAC 01.236). In recent years, due to poor run sizes, Chinook salmon harvests have been consistently below the ANS because of subsequent restrictions to fishing opportunities in order to meet escapement goals (Appendices B1–B3). Since 2005, this ANS was met during 2005–2007 and 2019 (Appendix B2). The subsistence fishery for Chinook salmon has been closed since 2021, and any harvest has been ancillary. Due to fishing restrictions and/or closures on Chinook salmon during years of poor runs, summer and fall chum and coho salmon have provided the largest subsistence harvest of salmon. However, during 2021–2025, subsistence harvest on these species was restricted and/or closed due to low run returns. During 2023 and 2024, with larger returns, a restricted subsistence harvest of summer chum salmon was allowed, although the subsistence fishery was closed in 2025 due to another season of poor returns.

The coho salmon run during 2023 and 2024 was the second and third lowest on record, respectively, and the subsistence fishery was closed. However, despite a poor 2021 parent year, the coho salmon returned in larger-than-anticipated numbers in 2025, and harvest with gear restrictions to protect fall chum salmon was allowed. Pink and sockeye salmon can be fished in the Lower Yukon River but are normally not targeted to as great an extent in the subsistence fisheries; however, with the recent chum and coho closures, they have taken on more importance in fulfilling subsistence needs. Resident species are also targeted throughout the Yukon River by subsistence fishers, but usually in much smaller amounts compared to salmon.

ESTABLISHED MANAGEMENT PLANS AND POLICIES

Regulations governing fisheries in the YMA are found in 5 AAC 73.005 through 5 AAC 73.065 (sport fishing), in 5 AAC 01.200 through 5 AAC 01.249 (subsistence fishing), and in 5 AAC 05.001 through 5 AAC 05.380 (commercial fishing).

Statewide salmon proposals that were adopted by the BOF also pertain to the YMA, such as the *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222), the *Policy for statewide salmon escapement goals* (5 AAC 39.223), and the *ADF&G Genetic Policy (06/11/1985).*

Two management plans for resident fishes apply to the entire YMA. These are the *Yukon River Area Wild Lake Trout Management Plan* (5 AAC 70.040; Burr 2006a), which was adopted for the remainder of the Arctic-Yukon-Kuskokwim region by the BOF in February 2007, and the *Yukon River Area Wild Arctic Grayling Management Plan* (5 AAC 73.055; Burr 2006b), which was adopted by the BOF in January 2004. Revision of existing plans, as well as development of additional fisheries management plans, may occur in response to sustainability concerns and public input.

MAJOR ISSUES

1. Ambler Road corridor: This proposed road corridor would connect the Dalton Highway to the Ambler Mining District located in the drainages of the Koyukuk and Kobuk Rivers. Water bodies affected within the YMA would include the Koyukuk, John, and Alatna Rivers, and numerous smaller streams and lakes. Some baseline fisheries assessment has been conducted on these water bodies from ADF&G DSF and Habitat Section personnel (Scannell 2015; Wuttig et al. 2015; Giefer and Johnson 2018). The area that the road would encompass is vast, and the potential for fish habitat degradation due to road construction and mine traffic is not well understood. Concerns have been expressed by SOA and Federal advisory councils regarding increased fishing pressure due to easier access to remote locations as a result of the new road. Currently, the proposed Ambler Road would be for industrial use only, but concerns have been expressed that these restrictions may be eased in the future, similar to what happened for the Dalton Highway in 1994.

2. Hook-and-line subsistence: Hook and line is legal subsistence gear throughout most of the Yukon River, excluding the Fairbanks Nonsubsistence Area (including Beaver and Nome Creeks in the WMNRA; Figure 4), the Tanana and Dall River drainages, Birch Creek upstream of the Steese Highway bridge, and the Koyukuk River subsistence permit area (Figure 3). Because subsistence fishing does not require a sport fishing license, subsistence-caught fish are excluded from the SWHS, which has led to fewer responses and angler effort recorded in the SWHS. Also, subsistence fishers using hook and line are not subject to the bag and possession limits that sport anglers are obligated to obey.

3. Rural resentment of sport fishing: At public meetings pertaining to the YMA, local residents sometimes express resentment toward sport anglers who come into remote areas traditionally used by local people for subsistence hunting or fishing. There is a particular dislike of catch-and-release fishing because it is culturally viewed as "playing" with food resources. Also, some YMA residents view catch-and-release fishing as potentially hurting or killing the fish, which can lead to unnecessary waste.

4. Federal fishery management for subsistence in Alaska's navigable waters: In October 1999, federal fishery managers assumed responsibility for ensuring rural (i.e., federally qualified) subsistence priorities on navigable waters adjacent to, or within, the boundaries of federal conservation units. Federal actions may result in reduced opportunity for sport fishing throughout the state. Because of the large amount of federal public land within the YMA and the high proportion of subsistence users, this potential loss of opportunity has been a concern for sport anglers.

   During 2023–2025, the Federal Subsistence Board adopted Temporary Federal Special Actions FSA 23-02, FSA 24-01, and FSA 25-02, respectively, which closed Federal public waters of the Yukon River to the harvest of Chinook, summer and fall chum, and coho salmon except by federally qualified subsistence users if these runs were large enough to allow for a harvest. Therefore, during 2023 and 2024, the summer chum salmon run met drainagewide escapement goals; however, the fishery was closed in federal waters except to federally qualified subsistence users, and similarly with the 2024 coho salmon run.

5. Concerns about climate change adversely affecting streams and fisheries: In recent years, anglers in the YMA have expressed concerns about very warm and/or high water in the mainstem Yukon River and tributaries. During 2019, record warm water was assumed to

have caused mortality in a large number of summer chum salmon, especially in the Koyukuk River drainage. During 2019–2023, the number of Chinook salmon forecast to cross the Canadian border fell short by 30,000–40,000 fish, with historically low runs since 2022. Increased prevalence of *Ichthyophonus* infection, which may be due to a warming climate, is considered a factor in the disappearance of Canadian-origin Chinook salmon. Water temperatures during 2020–2021 were not as high as in 2019, but water levels were high throughout much of the summer. Since 2022, water temperatures recorded in the Lower Yukon River have fluctuated; however, overall, they have stayed closer to average. It is unknown if these factors contributed to the recent low runs of Chinook, fall and summer chum, and coho salmon.

6. Below-average Chinook, chum, and coho salmon runs: The Chinook salmon sport fishery in the YMA has had restrictions or closures every year since 2011. Per the *Yukon River King Salmon Management Plan* (5 AAC 05.360), when there are restrictions to subsistence fishing, the sport fishery will close. Since 2012, the sport fishery for Chinook salmon has been closed prior to the season opening. Also, due to poor run strengths, chum and coho salmon sport and subsistence fisheries were often closed or restricted during 2021–2025.

SPORT FISHING EFFORT, HARVEST, AND CATCH

Effort, harvest, and catch statistics for YMA sport fisheries have been reported in the SWHS under the primary heading of "Yukon River drainages" (Area Y).[1] This area is broken into 3 sections: Downstream from the Koyukuk River (Lower), Koyukuk River to Fort Yukon (Middle), and Upstream of Fort Yukon to the Canadian Border (Upper; Figure 2). Angler responses to the SWHS have been steadily decreasing since 1996 (Figure 5). The angler response of 57 for 2024 was the lowest for the past 29 years, and in contrast to a high of 189 in 1996 (Figure 5). Recent low response rates are due to fewer anglers visiting the YMA and/or filling out the SWHS. The 2024 estimate of fishing effort (12,379 angler-days) is the highest since 2014, but still below the high of 15,044 in 2002 (Figure 5). For 2024, fewer than 12 responses were recorded for the Downstream from the Koyukuk River (Lower) and Upstream of Fort Yukon to the Canadian Border (Upper) sections, although the Koyukuk River to Fort Yukon section had a total response rate of 37 (Middle; Table 1). Because the Upper and Lower YMA sections encompass a very large area, summing these with the Middle YMA could be misleading. Therefore, these sections for 2024 and previous years were still given in the tables, with the values in bold to signify that the number of respondents was below 12. During 2024, all response values for individual streams and lakes were below 12. However, these estimates were still presented in bold to document that sport fishing occurred and for comparison to previous years for the more popular sport fisheries.

Sport harvest of all species combined from the YMA averaged more than 12,000 fish until the early 1990s, with the peak harvest of 14,720 in 1989 (Burr 2004). Since that time, annual harvests have declined. Sport harvests have averaged less than 5,000 fish in the most recent 10- and 5-year periods, with the 2024 estimate (2,983) below the averages of 3,517 and 3,209, respectively (Table 2). Sport fish harvest in the YMA has been dominated by freshwater resident species,

[1] Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: https://www.adfg.alaska.gov/sf/sportfishingsurvey/.

primarily Arctic grayling and northern pike. In 2024, Pacific salmon (all species combined) accounted for none of the sport harvest in the YMA.

Sport catch of all species in the YMA has been estimated since 1990. Numbers reported as catch include fish that are caught and kept (harvested), and those that are caught and released. For 2024, resident species composed 94% of the total catch, and salmon represented the remaining 6%. (Table 2).

SECTION II: FISHERIES

Waters within the YMA offer some of the most remote and diverse sport fishing opportunities in Alaska. Opportunities exist to catch trophy northern pike, sheefish, and Arctic grayling within wilderness settings. Sport fishing opportunities for salmon are currently not as well developed as in other management areas, and recent poor runs have restricted and/or closed Chinook, chum, and coho salmon sport fisheries. Marine sport fisheries within the boundaries of the YMA are rare and have not been reported in the SWHS in recent years.

The angler response rate for the SWHS has shown a steady decrease in the last 15 years, while the number of surveys mailed has generally remained the same (Smith et al. 2025). Moreover, the response rate has been affected by the general decrease in fishing effort within Region III. Although precision targets are still typically met at the statewide level, allowing for robust statewide estimates, this decrease in respondents has affected the department's ability to assess many smaller fisheries within Region III, where precision targets do not exist. The survey requires a minimum number of respondents (12) to produce rough estimates of harvest, catch, and effort in a sport fishery and a larger number of respondents (30) to produce more accurate estimates. The vast majority of fisheries within Region III are small, and the number of respondents for many has now dropped below 12. These drops have affected the interpretation of general trends and sustainability because we no longer have estimates of harvest, catch, and effort for many Region III fisheries, just documentation that fishing occurred. There are current efforts to modernize and update the SWHS.

This section provides a summary of significant sport fisheries by species in the YMA in 2024 and 2025. Discussion of each fishery will include (1) background and historical perspective; (2) specific management objectives, management plans, and recent actions by the BOF; (3) recent fishery performance and stock status; (4) current issues; and (5) ongoing and recommended management and research activities. Information regarding the 2025 season will be included as available; however, estimates of sport effort and harvest will not be available until 2026. A summary of recent sport fish harvests by species is provided for reference, and recent fishery performance in this report will focus on data from 2024 with 10- and 5-year average comparisons of 2014–2023 and 2019–2023, to identify harvest, catch, and effort trends where applicable. For a list of sport harvest and catch prior to 2014, see the SWHS or earlier YMA Fisheries Management Reports.

YUKON RIVER DRAINAGE SALMON

Yukon River drainage commercial, subsistence, and personal use (Tanana River near Fairbanks) fisheries are managed by the ADF&G Division of Commercial Fisheries (DCF). Chinook, summer and fall chum, and coho salmon have been important subsistence and commercial species in the Yukon River drainage. Harvest by sport anglers has, to date, been minimal in comparison (Table 2, Appendix B2).

Fishery Description

Chinook salmon are found throughout the Yukon River drainage. Chum salmon, composed of genetically distinct summer and fall runs, have been comparatively and numerically the most abundant species, with the majority of summer chum salmon spawning in streams up to and including the Tanana River and fall chum salmon spawning into Canada. Coho salmon have been less abundant and spawn in large numbers in only a few identified streams (Burr 2015). Pink salmon spawn in odd and even year cycles, of which one year may be more abundant than the next (Augerot 2005). Pink salmon are typically less abundant upstream of the Anvik River (Figure 2). Sockeye salmon are present as well, but relatively few fish have been harvested in commercial, subsistence, or sport fisheries (Table 2).

Sport catch and harvests of salmon in the Yukon River drainage have historically been primarily from streams of the Tanana River drainage, where mainly Chinook and coho salmon are targeted. Recent sport fisheries in TRMA are discussed within the *Fishery Management Report for Recreational Fisheries in the Tanana River Management Area, 2023* (Gryska and Baker 2025). Most salmon sport harvest and catch in the YMA have been reported from the Andreafsky and Anvik Rivers (Tables 3–5). Approximately 12,400 people live within the YMA (U.S. Census Bureau 2020). Most of these residents have depended on salmon for livelihood, subsistence, or both. Rural residents have customarily used high-yield fishing methods, such as gillnets and fish wheels, where a larger volume harvest can be taken in the turbid mainstem of the Yukon River. Hook-and-line fishing for salmon is practiced in clearwater tributaries of the Yukon River drainage by rural residents as legal subsistence gear throughout the YMA except for Beaver Creek within the Fairbanks Nonsubsistence Area, Birch Creek upstream of the Steese Highway Bridge, the Dall River, and the Koyukuk River subsistence permit area (Figures 3 and 4). Hook and line is also used by non-local SOA residents in areas where this is legal subsistence gear, as state law allows all Alaska residents subsistence opportunities within state-owned waters.

Sport fishing effort for wild salmon in the Yukon River drainage used to be directed primarily at Chinook salmon, and to a lesser extent, chum and coho salmon (Figure 6). For more than a decade, Chinook salmon stocks have experienced periods of low productivity. As a result, restrictions and closures for sport fishing opportunities have been implemented in the YMA and TRMA as conservation measures, and subsistence fishing opportunities have similarly been restricted or closed. Because Chinook, fall chum, and coho salmon also spawn across the border into Canada, these species are also managed through the Alaska/Canada *Yukon River Salmon Agreement*. This treaty represents an international commitment to the restoration, conservation, and management of Yukon River salmon.

During 2011–2025, restrictions and/or closures to the Chinook salmon sport fishery occurred each year in the YMA. The final year that an unrestricted sport fishery on Chinook salmon was allowed was 2010 (Appendix A1). The only recorded Chinook salmon sport fish harvest during 2014–2024 was 19 in 2019 (Table 3). Similarly, subsistence harvests in the YMA have decreased since 2005 from a high of 53,457 in 2007 to a low of 1,564 incidentally caught salmon in 2023 (Appendix B2), which was well below the ANS. A directed commercial fishery on Chinook salmon has not taken place since 2008. Also, since 2020, Chinook salmon have not met the interim management escapement goal (IMEG, 42,500 to 55,000) in Canada, which, per the treaty, was developed by the Joint Technical Committee and agreed upon by the Yukon River Panel. As a result of continuing poor runs, the U.S. and Canada have implemented an agreement in addition to the treaty that has closed all Yukon River-directed commercial, sport, subsistence, and personal use fisheries

that may target Canadian-bound Chinook salmon from April 2024 to April 2030. If the border passage is projected to exceed 71,000 fish, then a limited subsistence fishery may be allowed. The primary purpose of this closure is to rebuild stocks of Canadian-origin Yukon River Chinook salmon. However, given the trend in past years, it can also be anticipated that future restrictions and/or closures will also be implemented in YMA tributaries for non-Canadian-origin salmon.

Two genetically distinct subspecies of chum salmon spawn in the Yukon River drainage: summer and fall chum salmon. The summer chum salmon are usually the most abundant (approximately ⅔ of all Yukon River chum salmon), primarily enter the Yukon River before July 16, and most do not spawn upstream of the Tanana River. Most fall chum salmon begin to enter the Yukon River during mid-July, and the majority spawn above the Tanana River and into Canada (~15-25%). All chum salmon harvested in the YMA sport fisheries are categorized as summer chum salmon because these fish were primarily caught incidentally to Chinook salmon fishing during mid-summer in clearwater tributaries in years when Chinook salmon could be targeted. Some harvest of fall chum salmon entering clearwater tributaries occurs after Chinook salmon spawning concludes, but it was considered negligible relative to summer chum salmon harvests.

A period of increased variability in run strength of Yukon River Chinook and chum salmon began in 1998, with runs in 2000 being the lowest up to that time on record for both species. In September 2000, the BOF classified the Yukon River Chinook salmon as a stock of yield concern, the Yukon River summer chum salmon as a stock of management concern, and most of the Yukon River drainage fall chum salmon stock as a stock of yield concern. Fall chum salmon stocks in the Toklat River in TRMA and the Fishing Branch River in Canada (Figure 7) were classified as management concerns. The *Policy for the Management of Sustainable Salmon Fisheries* (5 AAC 39.222) defines a yield concern as an inability to maintain expected yields or harvestable surpluses above the stock's escapement needs, despite the use of specific management measures. A management concern is defined as the chronic inability to meet existing escapement goals for the stock.

From 2002 to 2006, Chinook and chum salmon runs improved over the very poor runs of 1998–2001. In 2007, continuing through 2016, the number of Chinook salmon returning to the Yukon River drainage was less than the historical averages (JTC 2025). The Chinook salmon returns were above the historical average during 2017 and 2019, but below in 2018. These numbers are reflected in the subsistence harvest values in relation to the ANS of 45,500–66,704 for Chinook salmon (Appendix B2) and in recent and historical total and Canadian-bound drainagewide estimates (Appendix B1). However, a downward trend of very poor returns for Chinook, summer and fall chum, and coho salmon began again in 2020, with historically low values during 2021–2024 for Chinook, fall chum, and coho salmon (Appendix B1). During 2023 and 2024, summer chum salmon numbers improved and exceeded the drainagewide escapement goal (500,000 to 1,200,000, Appendix B1). The Chinook salmon run continued to be poor in 2025, and the summer and fall chum salmon runs fell short of their escapement goals (300,000 to 600,000 for fall chum salmon). However, the coho salmon run in 2025 showed marked improvement despite a very poor 2021 parent year.

Because of the poor Chinook, chum, and coho salmon runs since 2020, closures have been implemented that have created hardships for subsistence users who have not had their subsistence needs met. Also, as a result of these closures, the sport and commercial fisheries have also been closed. Closures for Chinook salmon during 2020–2025 and summer chum salmon during 2022 and 2023 took place prior to the fish entering the Yukon River based on preseason forecasts for low returns. For sport anglers, having a level of fishing opportunity throughout the season is critical

for local economic benefits that can accrue from guiding services and lodges, and closures of key fisheries can be an economic burden. In the Lower Yukon River, pink and sockeye salmon were targeted in these fisheries because there was no management concern, but this did little to ensure residents in the Middle and Upper Yukon River were able to harvest enough salmon for their needs. The number of sockeye and pink salmon that are captured and harvested in the YMA sport fishery has been so low that yearly SWHS numbers are listed in Table 1, but no details of harvest and catch per area and drainage within the YMA are presented.

Fishery Management Objectives

Salmon resources within the SOA are governed by the *Policy for the Management of Sustainable Salmon Fisheries* (5 AAC 39.222). The goal of this policy is to ensure conservation of salmon in freshwater and marine habitats, protection of customary and traditional subsistence uses and other uses, and the sustained economic health of Alaska's fishing communities. Chinook salmon are also managed by the *Yukon River King Salmon Management Plan* (5 AAC 05.360), which provides guidelines to manage Yukon River Chinook salmon for sustained yield and guides all management decisions for subsistence, commercial, and sport fish uses. The sport fishery in the Yukon River drainage is managed to coordinate with the commercial and subsistence fisheries. Restrictions to sport fishing for Chinook salmon for conservation purposes correspond to abundance levels that are based on preseason estimates and inseason daily counts from the Pilot Station and Eagle sonars.

Because Chinook and chum salmon spawn in Canada, the treaty between Alaska and Canada adopted the IMEG of 42,500–55,000 Chinook salmon to cross the border. The proportion of Yukon River Chinook salmon that spawn in Canada is approximately 40–50% (Eiler et al. 2014). Canadian-origin Chinook salmon are primarily estimated with sonar counts with genetic apportioning with a test net near Pilot Station and sonar counts near Eagle, Alaska (Figure 7). The IMEG for fall chum salmon is 70,000–104,000, and those crossing into Canada farther north through the Porcupine River and into the Fishing Branch River in Canada are 22,000–49,000 (Figure 7, Appendix B3). Currently, no IMEG exists for coho salmon, and the relative proportion of Canadian-bound fish is poorly understood.

Because Chinook salmon have not met conservation objectives in both Alaska and Canada, an agreement was enacted from April 2024 to 2030 that has been temporarily added to the *Yukon River Salmon Agreement* in an attempt to rebuild the Canadian-origin Chinook salmon stock by closing all Alaska and Canadian Chinook salmon fisheries in the mainstem that target these stocks. As a result, directed Chinook salmon commercial, sport, domestic, and personal use fisheries in the mainstem Yukon River in both Alaska and Canada have been suspended for 7 years. If, within this closure period, there is a projected border crossing of 71,000 or more Chinook salmon, then a limited subsistence fishing opportunity may be allowed. However, the sport fishery will remain closed through April 2030 even if the border crossing of 71,000 Chinook salmon is achieved in the mainstem Yukon River. If during this period the Chinook salmon runs show significant improvement, a limited sport fishery may be allowed in the tributaries where Canadian-origin fish will not be targeted.

Summer and fall chum salmon are managed within the Yukon River drainage with the *Yukon River Summer Chum Salmon Management Plan* (5 AAC 05.362) and *Yukon River Fall Chum Salmon Guideline Harvest Ranges* (5 AAC 05.365). Inseason run size projections for fall chum salmon are based on the historical run size estimates of summer chum salmon, which is 1/3 of the run strength of the summer chum salmon.

Coho salmon usually enter the Yukon River in mid-to-late July and are primarily targeted in the fall. Yukon River coho salmon are managed with the *Yukon River Coho Salmon Management Plan* (5 AAC 05.369). The primary goal of this plan is to provide for the management of directed commercial coho salmon fishing in the Yukon River.

Recent Fishery Performance

Chinook Salmon

The preseason outlook for 2024 was for a drainagewide run size of 45,000 to 68,000 Chinook salmon and 19,000 to 28,000 for Canadian-origin fish. Because of the poor projected run size, a cautious management approach was taken for the subsistence fisheries, which began the season closed. Similarly, the YMA and TRMA sport fisheries closed on 21 and 28 March 2024, respectively, due to the poor projection and impending preseason closure to the subsistence fishing schedule. The Chinook salmon run in 2024 showed some improvement from 2022 and 2023, which were the lowest on record. During 2024, 56,159 Chinook salmon were estimated drainagewide (Appendix B1). Of this number, 25,390 fish were of Canadian origin, which was well below the IMEG of 42,500 to 55,000. Because of these historically low numbers, the subsistence and sport fisheries remained closed for the remainder of the season. During 2019 to 2023, border passage was approximately 30–50% below what was predicted from Pilot Station sonar estimates of Canadian-origin Chinook salmon.[2] However, for 2024, the inseason escapement of Canadian-origin Chinook salmon that was predicted by genetic apportionment conducted at the Pilot Station Sonar differed by ~15% from what was counted at the border. For the YMA sport fishery during 2024, 0 chinook were harvested and 353 were caught and released; the latter represented incidental rather than targeted catches because the Chinook salmon sport fishery was closed for the entire summer (Table 3).

The Chinook salmon sport fishery closed on 31 March 2025 in the YMA and TRMA for both subsistence and sport fishing due to another poor preseason outlook that predicted a drainagewide run size of 58,000 to 88,000 fish and 24,000 to 37,000 for Canadian-origin fish. Preliminary counts of Chinook salmon that were estimated by the Pilot Station and Eagle sonars were 60,407 and 23,806, respectively, which were still historically low for these two enumeration projects (Appendix B3). These estimates were within preseason forecasts but still well below the IMEG of 42,500–55,000 for Canadian-origin fish and the rebuilding target of 71,000. Similar to 2024, the inseason escapement of Canadian-origin Chinook salmon that was predicted by genetic apportionment conducted at the Pilot Station Sonar differed by ~14% compared to the 30–40% of 2019 to 2023.

Chum salmon

The drainagewide summer chum salmon outlook for 2024 was for a run size of approximately 550,000 to 1,800,000 fish, which would be within the drainagewide escapement goal of 500,000–1,200,000. As a result, there was no preseason closure of the subsistence and sport fisheries for summer chum salmon. The preseason forecast for fall chum salmon was for a run of 263,000 to 474,000 fish, which could potentially not meet the escapement goal of 300,000 to 600,000 fish. The drainagewide summer chum salmon abundance estimate was 807,980 (Appendix B1), which met the drainagewide escapement goal. Normally, fall chum salmon are 1/3 the run strength of

[2] Gleason, C. M., D. M. Jallen, B. M. Borba, F. W. West, S. K. S. Decker, J. N. Clark, and A. J. Padilla. *In prep*. Yukon Management Area Annual Report, 2024. Alaska Department of Fish and Game, Fishery Management Report, Anchorage.

summer chum salmon, which would have meant an inseason run of fall chum salmon below the lower end of the escapement goal of 300,000. It became apparent by mid-August that the fall chum salmon run would not meet this goal, and the sport fisheries closed for chum salmon in both the YMA and TRMA on 16 August 2024. Using genetic mixed stock analysis, it was determined that the early portion of the fall chum salmon run was summer chum salmon, and the preliminary estimate past the Pilot Station sonar was 165,000 (Appendix B1). The Canadian-origin fall chum salmon estimate was 16,000 fish, which was well below the IMEG of 70,000–104,000 and was the lowest on record and worse than the previous record low years of 2020 to 2023. The fall chum salmon run into the Tanana River met the escapement goal, and this was the only tributary where this occurred (Figure 2). For the sport fishery, 0 chum salmon were harvested and 327 were caught and released in 2024; the latter represented incidental rather than targeted catches because the sport fishery was closed for the entire summer and fall chum salmon runs (Table 4).

The drainagewide summer chum salmon outlook for 2025 was for a run size of approximately 550,000 to 1,800,000 fish, which would be within the drainagewide escapement goal of 500,000–1,200,000. However, due to the historically low parent year returns in 2021, the subsistence fishery would open only if confidence was high that the summer chum salmon run was projected to meet the drainagewide escapement goal. The preseason forecast for fall chum salmon was for a run of 114,000 to 322,000 fish, which would potentially not meet the escapement goal of 300,000 to 600,000 fish. The summer chum count estimate past the Pilot Station sonar was 347,529 (~414,488 after preliminary genetic apportionment), which was well below the drainagewide escapement goal (Appendix B3). As a result of low numbers counted by the Pilot Station sonar, the sport fishery for chum salmon closed on 9 July 2025 for both the YMA and TRMA. Normally, fall chum salmon are 1/3 the run strength of summer chum salmon, which would have meant an inseason run of fall chum salmon below the lower end of the escapement goal of 300,000. The preliminary count past the Pilot Station sonar was 343,426, which would have met the escapement goal; however, using genetic mixed stock analysis, it was determined that the early portion of the fall chum salmon run were summer chum salmon and after the total run is estimated through run reconstruction techniques, it is anticipated that this number will be below 300,000 (Appendix B3). The fall chum salmon estimate past the Eagle sonar was estimated at 16,637 fish on 1 October 2025, which is incomplete because the Eagle sonar usually operates into mid-October. This value is well below the median cumulative of 114,557 for this date and is not anticipated to meet the lower end of the IMEG of 70,000 fish.

Coho salmon

In 2024, the coho salmon run was forecast to be below average. The total incomplete drainagewide estimate was 89,916, which was one of the lowest on record (Appendix B1). Much of the estimate comes from the Pilot Station sonar, which ceased operations on 7 September 2024. Because the inseason counts past the Pilot Station sonar were trending below the historical daily medians, the sport fisheries for coho salmon in the YMA and TRMA were closed on 22 August 2024. Also, when it became apparent that the coho salmon run was very weak, retention of subsistence-caught coho salmon was no longer allowed. Before the closure of the sport fishery, 0 coho salmon were harvested, and 451 were caught and released in 2024 (Table 5). The catch value is based on 2 responses from the Anvik River, which is well below the minimum of 12 responses to indicate relative numbers of fish harvested and caught, and therefore incurs low precision and is solely indicative that the sport fishery occurred.

The 2025 coho salmon run was expected to be below average, given the parent year of 2021, which was the lowest on record. However, the incomplete count of 106,153 past the Pilot Station sonar was larger than anticipated and the largest since 2020 (Appendix B1). Similar to previous years, the Pilot Station sonar ceased operations on 7 September 2025 before the completion of the coho salmon run. Because the coho salmon run was large enough to allow for a subsistence harvest opportunity, the sport fishery did not close in 2025 for both the YMA and TRMA (Appendix A3).

Research and Management Activities

During 2024 and 2025, several salmon enumeration projects were conducted within the Alaska and Canadian portions of the Yukon River (Figure 7). In the lowermost Yukon River, setnet and driftnet test fisheries (late May to mid-September) were conducted by ADF&G DCF to assess daily CPUE. These data were used to inform managers and users of the probable run size and timing of immigrating salmon. Farther upriver, the Mountain Village Drift Gillnet Test Fishery primarily focused on enumerating fall chum and coho salmon (mid-July to mid-September). On the mainstem Yukon River, ADF&G DCF assessed upriver migrating salmon with the Pilot Station sonar (122 miles [196 km]), which typically operates from late May until early September. During 2024, the nearby Andreafsky River weir, located downriver from Pilot Station and above St. Mary's, operated by the United States Fish and Wildlife Service (USFWS), enumerated Chinook and summer chum salmon during June and July (Figure 7). Due to high water events, the 2024 salmon counts were considered minimum values, and this was the final year of weir operation. Above Pilot Station and on the Anvik River, ADF&G DCF operated a sonar that primarily enumerated summer chum salmon during June and July. On the Koyukuk River, the Gisasa River weir did not operate in 2024 and 2025 and was last operated by the USFWS in 2023. The Gisasa River weir has primarily enumerated Chinook and chum salmon during July to early August. The Henshaw Creek weir, operated by the Tanana Chiefs Conference, primarily enumerated Chinook and chum salmon during July to early August, has not operated since 2021. Farther up the Yukon River, the Teedriinjik (Chandalar) River sonar operated by USFWS enumerated fall chum salmon (early August to mid-October). Lastly, Eagle Sonar, operated by ADF&G DCF, enumerated Chinook and fall chum salmon and operated from early July until mid-to-late October. Chinook and chum salmon counts for the projects contained in the YMA are presented in Appendix B3, along with the escapement goals where applicable. Other salmon counts within the entire Yukon River drainage outside of the YMA and in Canada can be found at:

https://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareayukon.salmon_escapement

During 2024, ADF&G Alaska Freshwater Fish Inventory team based out of Coal Creek in the Yukon Charley National Preserve conducted surveys on fish presence/absence in YMA streams in the Upper Yukon River. Fish were primarily sampled with electroshocking equipment. Collected anadromous fish (primarily salmon) were used to nominate waters to the SOA's Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes (Anadromous Waters Catalog), and to update fish life stage information for waters already listed in the Anadromous Waters Catalog. Nonanadromous resident species were listed in the Alaska Freshwater Fish Inventory online mapping catalog. Habitat characteristics and water quality were recorded for each stream sampled.

During 2019 to 2023, a much lower than expected passage of Chinook salmon at the Canadian border was noted between the estimate of Canadian-origin Chinook salmon from the Pilot Station sonar, compared to counts by the Eagle sonar. The presence of *Ichthyophonus* disease and the

potential for en route mortality was implicated as one possible explanation for the observed difference and prompted ADF&G and USFWS staff to begin exploring options for annual monitoring and methods for quantifying disease associated mortality (Ferguson et al. 2022). As a result, a research project has been implemented to try and account for this discrepancy. During 2022 to 2024, multiple agencies, including ADF&G DCF, collected tissue samples from Chinook salmon in different locations from the Lower to Upper portions of the Yukon River to test for the presence of *Ichthyophonus* to assess if this disease may be responsible for the lower-than-anticipated number of Chinook salmon reaching Canada in recent years. The primary purpose of this ongoing project is to develop an annual *Ichthyophonus* monitoring program, build support to increase community-based *Ichthyophonus* monitoring, and build new tools capable of estimating annual disease-associated mortality. Additionally, in 2023, ADF&G DCF implemented a radiotelemetry project on Chinook salmon as an additional tool to detect en route mortality with the goal of systematically deploying 500 esophageal radio transmitters into Chinook salmon in the Lower Yukon River and tracking these fish throughout the drainage, including spawning streams in Canada. During 2023, <50 radio transmitters were deployed due to high water. Conditions improved in 2024, and 182 radio transmitters were deployed, of which 94 radiotagged Chinook salmon crossed the border into Canada. This project was slated to operate for one more season in 2025; however, it was cancelled due to budgetary issues.

Multiple agencies have been deploying temperature data loggers in different locations of the Yukon River drainage, and a central database has been created. The water temperatures during 2020–2025 were not as high as recorded in 2019, when temperatures above 72°F (22°C) were recorded during 14–19 July 2019 in the Lower Yukon River near Emmonak (Stuby 2021). Migrating adult Pacific salmon are sensitive to warm water (>18°C) with a range of consequences from decreased spawning success to early mortality (Von Biela et al. 2020). Water temperatures above 70°F for prolonged periods can cause salmon mortality (McCullough et al. 2001). Heat stress was a factor during 2019 when thousands of summer chum were documented to have died prior to reaching their spawning areas with egg skeins still intact. In contrast, there were no reports of premature deaths of Chinook salmon, just the disappearance of a large proportion of Canadian-origin fish during 2019–2023.

YUKON RIVER NORTHERN PIKE

Fishery Description

Northern pike inhabit sloughs, interconnected lakes, and lower, slow-moving sections of large rivers throughout most of the Yukon River drainage. Many of the lowland tributary waters are particularly noted for large northern pike. In the YMA, most sport fishing for northern pike occurs during the open water season. Northern pike are targeted beginning in late spring, immediately following spawning, and throughout the summer months. Some sport and subsistence harvest is taken during winter months through the ice with hook-and-line gear. Spearing and bow and arrow techniques are also legal means that may account for a small proportion of the total harvest, but most sport harvest of northern pike is taken with rod and reel.

Historically, fishing for northern pike in the YMA has been conducted by Alaska residents near towns or villages, or where access is provided by road or boat. Within the YMA, the majority of sport-harvested northern pike are from the Porcupine, Dall, Nowitna, Koyukuk, Innoko, and Andreafsky Rivers (Table 6). The Porcupine and Koyukuk Rivers are 2 of the largest tributaries

of the YMA, and sport fishing within these drainages is dispersed, and site-specific fishing effort is low.

The most popular sport fisheries for northern pike have historically been in the Innoko, Nowitna, and Dall Rivers, which are known for having large fish (Burr 2015). The Innoko River and its tributaries drain a large, flat wetland area at the foothills of the Kuskokwim Mountains. The Innoko River enters the Yukon River near the village of Holy Cross (Figure 2). This river system, with its extensive wetlands, provides excellent habitat for whitefish, sheefish, and northern pike. The state record northern pike (38 lb, 8 oz [17.5 kg]) was caught in the Innoko River in 1991. The Innoko River has 2 guiding outfits that target large northern pike and sheefish: Midnight Sun Trophy Pike Adventures and Alaska Pike Safaris. Both guiding businesses cater to anglers seeking catch-and-release opportunities for trophy-sized northern pike. The majority of the clientele consists of nonresidents.

The Nowitna River enters the Yukon River approximately 81 miles downstream from the outlet of the Tanana River and is 31 river miles (~50 km) from Ruby. Most of the Nowitna River is within the boundaries of the Nowitna National Wildlife Refuge, and sport fishing effort occurs mainly within the lower 30 miles (~48 km) of the river with numerous sloughs and oxbow lakes. The Yukon River Lodge, which was located near Ruby and has closed, used to offer guided fishing trips, and the current status of the property is unknown. The Dall River is an approximately 21-mile (~34 km) boat ride upriver from the boat launch near the Yukon River bridge, which is located near MP 56 of the Dalton Highway (Figure 2).

Fishery Management Objectives

Over the years, concerns have been expressed about sport anglers harvesting too many northern pike on the Innoko, Nowitna, and Dall Rivers. The 2 guiding outfits that operate on the Innoko River insist that fishing mortality is low because their clients employ only proper catch-and-release fishing techniques and very few are harvested. This has been consistently confirmed with the discrepancy between catch and harvest values in the SWHS and guide logbooks up to the final year of publication in 2016 (Stuby 2021). Subsequently, members of Dinyea Corporation (Stevens Village) have expressed that too many northern pike have been harvested from the Dall River by sport anglers from nearby large cities like Fairbanks. Similar concerns were expressed in past years regarding the Nowitna River (Burr 2004). General sport fish regulations for harvest of northern pike in the YMA in *Seasons, bag, possession, and size limits, and methods and means for the Yukon River Area* [5 AAC 73.010 (7)] set the bag and possession limit at 10 fish, with no size limit. Due to concerns expressed for the Innoko, Nowitna, and Dall Rivers, restrictions were implemented in 2001 for sport fishing harvest of northern pike, in particular for "large" northern pike that are $\geq$30 inches total length (720 mm). Special regulations for these 3 rivers and other easily accessible areas are as follows:

5 AAC 73.010 (c) (1): In all waters of the Innoko River drainage, including all waters draining into the Yukon River from Holy Cross downstream to and including Piamiut Slough, the bag and possession limit for northern pike is 3 fish, of which only 1 fish may be 30 inches or greater in length.

5 AAC 73.010 (c) (6): In the waters of the Nowitna River drainage, the bag and possession limit for northern pike is 5 fish, of which only 1 fish may be 30 inches or greater in length.

5 AAC 73.010 (c) (3): In all waters of the Dall River drainage and in all waters of the Little Dall River drainage, northern pike may be taken only from May 20 through September 30, with a bag and possession limit of 4 fish less than 30 inches in length and only 1 fish which may be 48 inches or greater in length; all northern pike caught that are at least 30 inches, but less than 48 inches in length, may not be possessed or retained and must be immediately released.

5 AAC 73.010 (c) (4): In the Dalton Highway corridor (Trans-Alaska Pipeline corridor) within the Yukon River Area, which is described as a corridor 5 miles (~8 km) wide on each side of the Dalton Highway north of the Yukon River, excluding the Ray River, the bag and possession limit for northern pike is 5 fish, of which only 1 fish may be 30 inches or greater in length.

5 AAC 73.010 (c) (2): In all waters upstream from the mouth of the Tanana River to and including the Hodzana River, the bag and possession limit for northern pike is 5 fish, of which only 1 fish may be 30 inches or greater in length.

The Dall River drainage has the strictest regulations in the YMA out of concern for overharvest of northern pike due to the ability for sport anglers from large population areas to access this fishery with a relatively short boat ride from the Dalton Highway. In addition, harvest of northern pike is also restricted along a 5-mile (~8 km) radius of the Trans-Alaska Pipeline Corridor along the Dalton Highway and between the Tanana and Hodzana Rivers due to similar concerns of overharvesting (Figure 2). During 1999 and 2000, ADF&G, Stevens Village Office of Natural Resources, and USFWS developed a management plan that described an area for special management of northern pike designed to conserve the proportion of large fish in the population (Burr 2004). However, in a 2021 meeting with Dinyea Corporation, the current YMA area management biologist (Lisa Stuby, the FMR author) was informed that this management plan had not been applicable for many years and was not currently recognized.

Recent Fishery Performance

The 2024 total YMA harvest and catch for northern pike were 971 and 12,361, respectively. The 2024 harvest and catch values were higher than recorded in 2023 and similar to the 10- and 5-year averages of 870 and 911 for harvest and 11,942 and 11,284 for catch, respectively (Table 6). All sport harvest for northern pike in 2024 was in the Middle Yukon River (Table 6). Northern pike catch numbers were 0 in the Upper River and 6,110 and 6,251 in the Lower and Middle Yukon River, respectively. The 2024 harvests for the Innoko, Nowitna, and Dall Rivers were 0, 30, and 457, respectively, with catch values of 5,048, 97, and 4,681, respectively (Table 7). Northern pike harvest values for the Innoko, Nowitna, and Dall Rivers have remained at this relatively low level within the past 10 years. Catch values were higher, which shows the propensity for anglers to engage in primarily catch-and-release activities (Tables 6 and 7). The 2024 harvest and catch values only show that fishing occurred due to the low number of respondents, who were 2 for the Innoko, 3 for the Nowitna, and 1 for the Dall River.

Similarly, the 2024 estimates of sport harvest and catch for Dall River northern pike only show that fishing occurred. The Dall River is located in the Middle Yukon River between the Koyukuk River and Fort Yukon, and although the total respondents to the SWHS were 45 for this area, the total respondents for the Dall River were 1 for 2024. The elevated catch number (29,344) for 2019 was likely an anomaly due to the low number (4) of respondents. The area management biologist believes that the northern pike sport fisheries in the Dall River and other YMA drainages are sustainable because sport fishing effort has consistently remained low.

Research and Management Activities

Little quantitative information is available concerning the status of northern pike stocks in much of the YMA. Due to remoteness and cost of access, fishing effort has been typically minimal on most stocks in the YMA. In areas that receive more fishing pressure, restrictions were implemented to sport harvest with respect to bag limit and on harvesting "large" northern pike ≥30 inches total length (720 mm). Currently, no research projects are being conducted on northern pike within the YMA because of a lack of concern for overharvest in the sport fisheries. However, in future years, if funding becomes available, it would be good to examine the length composition of northern pike in the Innoko, Nowitna, and/or Dall Rivers, and note the proportion of large fish ≥30 inches in order to ensure that the regulatory restrictions have ensured sustainability.

Prior to the BOF adopting special regulations to impose size and bag limits of northern pike in the Innoko, Nowitna, and Dall Rivers, several projects were implemented because of sustainability concerns with sport fishing on these fish stocks. A stock assessment project of northern pike inhabiting the Innoko River was conducted during 2002–2004 (Scanlon 2009). The project used radiotelemetry techniques to describe seasonal movements and the geographic area used by this stock. The project also provided information on the age and size composition of northern pike in the area. A separate but related project was conducted during this period that described subsistence use patterns of freshwater fish, including geographic distribution of subsistence fishing for northern pike during winter and summer (Brown et al. 2005). The project also gathered information on the size and sex composition of the winter subsistence catch based on tag returns from fish tagged during the summertime sport fishery. These studies found that northern pike spawning in the Lower Innoko River drainage traveled extensively (>200 miles seasonally); however, these fish generally remained within the Innoko River drainage during the open water season rather than migrating into the Yukon River or neighboring drainages. In contrast, during winter these fish were regularly found in the mainstem Yukon River near Holy Cross and in the Piamiut Slough (Figure 2).

For the Nowitna River, a study was conducted in 1997 to assess the stock status of northern pike in the Lower Nowitna River. The objectives of the study were to estimate abundance and size composition of northern pike in 3 sloughs connected to the river during early, mid, and late summer (Burr 1998; Burr and Roach 2003). In addition to obtaining current information on this northern pike stock, another goal of the study was to formulate a sampling protocol that would facilitate future sampling of this and other similarly situated northern pike stocks. The study found large numbers of northern pike in mature age and size categories. The magnitude of movement of fish in and out of these sloughs and between sloughs was far greater than anticipated and confounded the application of the study findings to future sampling efforts. The movements of individually marked fish indicated that northern pike using the lower 20 miles (~32 km) of the river were part of a single large stock. The study concluded that the population was lightly exploited, and levels of fishing pressure were within sustainable limits.

In 2005, a radiotelemetry study was initiated in the Lower Nowitna River. The goal of the study was to obtain an understanding of the seasonal movements of northern pike over a 3-year period. Knowledge of seasonal movements would facilitate representative sampling of northern pike in the lower 25 miles (~40 km) of the drainage and assist in the design of future mark–recapture experiments within an appropriately sized index area and within an appropriate time period. Movements of radiotagged northern pike in this study showed that some fish captured in the study area (lower 25 miles of the river) traveled upstream of the Titna River (more than 100

river miles [~160 km]) during late summer and remained there throughout the winter. Other fish remained within the study area, and some fish traveled 50 or more miles (~81 km) up or downstream in the Yukon River from the outlet of the Nowitna River (Brendan Scanlon, ADF&G Division of Sport Fish, Fishery Biologist, Fairbanks, personal communication). These results show that northern pike inhabiting the Nowitna River use a very large portion of the Nowitna River drainage during the year and should be considered as a single stock for management purposes.

For Dall River northern pike, a series of stock assessment projects and use survey studies were conducted on the population and the fishery between 1988 and 2001 (Arvey and DeCicco 1989; Arvey and Burkholder 1990; Burr and James 1996; Chythlook and Burr 2002). The mark–recapture project took place over 2 years; the fish were tagged in 1988 and recaptured in 1989. This project showed that northern pike in the Dall River were part of a larger population extending beyond the Dall River. Because of this immigration, the estimated abundance of 4,385 northern pike in the lower 11 miles (18 km) was assumed to have been biased high. Age composition of northern pike in the Little Dall River was skewed toward the younger age classes in comparison with samples from the Dall River and Old Lost Creek, which is located approximately 36 miles upriver (58 km) from the Dall River. The radiotelemetry study that was conducted in 1999 and 2000 found that most northern pike captured within the Dall River in early summer remained within the drainage during the fishing season. The study also found that the proportion of fish larger than 30 inches (total length) had not decreased substantially from estimates from 1988 and that a substantial number of large (>30 in) fish were still present (Chythlook and Burr 2002).

YUKON RIVER ARCTIC GRAYLING

Fishery Description

Most Arctic grayling fishing occurs during the summer months of July–September. The largest sport fisheries for Arctic grayling are in areas accessed from the Steese, Dalton, and Taylor Highways. These highway-accessible streams are primarily headwaters tributaries. Pre-spawning migration begins between mid-April to early June, depending on location (Tack 1980). Post-spawning movement to summer feeding areas ceases in mid-June as they occupy their oversummering habitats for approximately 2–4 months (Fish 1998; Gryska 2006). During fall, Arctic grayling will migrate downstream to overwinter in areas with more habitat, such as deep back eddies as ice depth encroaches on bottom substrates in shallower streams.

On average, the majority of harvest and catch of Arctic grayling in the YMA has occurred in the Middle Yukon River (Table 8). Within this section, much of the catch and harvest comes from Koyukuk River tributaries, especially those that are accessed by the Dalton Highway. Of these, the Jim River is a productive Arctic grayling fishery and one of the most accessible streams that parallels the Dalton Highway for 10 miles (~16 km) with 3 bridge crossings. The Jim River is a clearwater, rapid runoff stream that offers both spring spawning and summer feeding habitat for Arctic grayling (Tack 1980). The Dalton Highway opened to the general public in 1994 amid concerns about increased access leading to overharvesting of fish stocks that are easily accessed from this highway; however, harvest levels have remained sustainable.

Nome Creek, a Beaver Creek tributary, and Birch Creek are other popular Middle Yukon River Arctic grayling fisheries that are easily accessed from the Steese Highway and are 2 of Alaska's 25 Wild and Scenic Rivers. Most of the fisheries in the Wild and Scenic portion of Beaver Creek are located within the SOA Fairbanks Nonsubsistence area (Figure 4). The Arctic grayling fishery in Beaver and Nome Creeks is also located within the WMNRA, which is managed by BLM.

Nome Creek can be accessed by way of a 7-mile (~11 km) unpaved road from MP 57 of the Steese Highway north of Fairbanks (Figure 4). Improvements to the Steese Highway in the early 1990s and the creation of 2 campgrounds along Nome Creek Road that parallel Nome Creek raised concerns about increases in visitation and subsequent fishing pressure on Arctic grayling in Nome Creek. Therefore, the BOF adopted a catch-and-release only regulation for Arctic grayling in Nome Creek in 1994. In Beaver Creek, anglers can harvest up to 5 Arctic grayling per day. A popular approximately 100-mile (~161 km) float begins at the end of the Nome Creek Road to ~9 rkm above the Victoria Creek confluence on Beaver Creek. Birch Creek is located within the Steese National Conservation Area and can be accessed at 3 locations along the Steese Highway. and is a popular float between the access points with numerous opportunities to fish for Arctic grayling (Figures 2 and 4).

The Lower and Upper Yukon River also have important Arctic grayling sport fisheries. The largest sport fisheries in the Lower Yukon River are found in the Anvik and Innoko Rivers (Table 8). For the Upper Yukon River, most Arctic grayling sport fishing occurs from the Fortymile River drainage, which is accessible from the Taylor Highway. Virtually all other Arctic grayling harvest in the drainage is from streams with no or very limited road access. Therefore, sport fishing effort and harvest in these inaccessible systems are considered inconsequential relative to sustainability (Table 8).

Fishery Management Objectives

Management strategies for Arctic grayling stocks in the YMA are found in the *Yukon River Area Wild Arctic Grayling Management Plan* (5 AAC 73.055). The goal of this management plan is to maintain naturally reproducing, sustainable populations of Arctic grayling with characteristics that are desirable to the angling public. The general sport fish regulations for harvest of Arctic grayling in the YMA can be found in *Seasons, bag, possession, and size limits, and methods and means for the Yukon River Area* [5 AAC 73.010 (b) (5)], and the bag and possession limit is 5 fish, with no size limit.

The regional management approach is currently applied to all Arctic grayling fisheries in the YMA, except for Nome Creek in the Beaver Creek drainage. The Nome Creek fishery is regulated under the "special management approach" (5 AAC 73.055(i)). Per 5 AAC 73.010 (c) (5), in the Nome Creek drainage of the Beaver Creek, Arctic grayling may be taken only by catch-and-release fishing and may not be possessed or retained; all Arctic grayling caught must be immediately released. Also, per 5 AAC 73.010 (d) (2), from April 1 through May 31, in the Nome Creek drainage of Beaver Creek, only unbaited single-hook, artificial lures may be used. Bait is prohibited during the spring spawning event. The special regulations for Nome Creek are to protect this fishery, given its easy accessibility and popularity being so close to the population center of Fairbanks.

Arctic grayling fisheries along the Dalton Highway follow the general regulations. Prior to 2004, the fishery required a 12-inch minimum length limit. In January 2004, the BOF adopted new regulations for the Dalton Highway Arctic grayling fishery that rescinded this length limit, but the daily bag and possession limit has remained at 5 fish (Burr 2014).

Recent Fishery Performance

Arctic grayling make up the majority of the harvest and catch of the sport fish species in the YMA. During 2024, Arctic grayling composed 31% of the total harvest and 35% of the total catch. The

total harvest in 2023 was 58% and the catch was 64%, so there has been a 27% and 29% decrease in total harvest and catch, respectively, reported in the SWHS in 2024 compared to 2023. Total harvest and catch of Arctic grayling in the YMA during 2024 were 919 and 8,389, respectively (Table 8). During 2024, no concerns arose regarding catch, harvest, and/or effort in the more popular Arctic grayling sport fisheries in the YMA. Overall, the total 2024 harvest of Arctic grayling in the YMA trended lower or was similar to the previous 10- and 5-year averages for harvest of 1,525 and 1,233, respectively (Table 8). Similarly, a decrease was noted for catch with the previous 10-year average of 13,935 and the 5-year average of 9,627. These values suggest that not only was there less sport fishing effort for Arctic grayling in the YMA in 2024, but there has been an overall downward trend in harvest and catch since 2014.

Based on the 10-year average (2014–2023), the sport fishery for Arctic grayling accessed from the Dalton Highway (including the Jim River) has accounted for about 17% and 16% of harvest and catch, respectively, of Arctic grayling from the entire YMA (Table 8). However, while modest increases in visitor use have been recorded at the Arctic Interagency Visitor Center in Coldfoot since 2020, with the easing of COVID-19 pandemic restrictions, recent estimates of angler effort and Arctic grayling catch have not reflected significant increases in the sport fishery (Appendix C). For 2024, fishing effort was 1,733 angler days, which was the highest since 2020. The catch of 1,726 for 2024 was lower than that for 2023 (1,982), but still much lower than a high of 9,703 in 2006 (Appendix C). The values from 2024 represented 12 responses and 13 responses for 2023, so the data from the past two years has been useful for assessing long-term trends. However, data from 2018–2020 and 2022 had fewer than 12 responses, and care must be taken when using these for comparison. In 2024, the Interagency Visitor Center recorded a total of 7,530 visitors, and 8,537 in 2025 (Appendix C). It is unknown what proportion of visitors to the Interagency Visitor Center engaged in sport fishing activities.

For 2024, no sport harvest was reported for Beaver and Nome Creeks (SWHS combines both into a single estimate), and 2,284 Arctic grayling were caught and released (Table 8). The SWHS reported a 2024 harvest of 191 and a catch of 601 for Birch Creek. However, for 2024, there were only 3 responses for Beaver and Nome Creeks (compared to 8 in 2023) and 6 for Birch Creek (compared to 0 in 2023), thus only indicating that sport fishing occurred. During 2014–2023, Beaver Creek accounted for 6% of the total harvest of Arctic grayling in the YMA, and both Beaver and Nome Creeks accounted for 14% of the total catch. During this same 10-year period, Birch Creek accounted for 5% of the total harvest and catch of Arctic grayling in the YMA.

Research and Management Activities

Between 1995 and 1997, stock assessment experiments were conducted to obtain baseline abundance and composition data for stocks of Arctic grayling in rivers and streams crossed by the Dalton Highway. Studies concluded that fish catchability in the Jim River was not affected by accessibility from the highway and that fishing pressure at easily accessible locations along the river was probably not substantial enough to cause changes in catchability throughout the summer (Fish 1997).

A radiotelemetry study of movements of Arctic grayling vulnerable to the Jim River summer fishery was conducted in 1997 and 1998. The goals of the study were to locate spawning and overwintering habitats of Arctic grayling and to determine the fidelity of Arctic grayling to summer feeding areas in the Jim River. This study found that most fish tagged in the Jim River remained in the Jim River during the winter (Fish 1998). A smaller proportion (about 35%)

wintered in other locations, including the South and Middle Forks Koyukuk River and Prospect Creek, a tributary of Jim River. During spring spawning, most Arctic grayling were located in either the fishery area close to the road system or in the Lower Jim River near its confluence with the South Fork Koyukuk River. No radiotagged Arctic grayling were noted to spawn in Grayling Lake, which has been documented as an Arctic grayling spawning location. Less than 20% of radiotagged Arctic grayling were located during the spawning season in Fish and Prospect Creeks and the South Fork Koyukuk River. The migration characteristics and patterns of habitat use were very similar to those of other stocks of Arctic grayling inhabiting other clearwater rapid-runoff rivers in Interior Alaska. This study suggested that Arctic grayling in Jim River are probably a distinct stock that may share overwintering and feeding habitat with other Koyukuk River stocks.

In 2000 and 2001, a study was conducted to estimate the age and length at maturity for Arctic grayling in the Jim River (Gryska 2003). This study found that Arctic grayling in this system mature at larger sizes and at an older age than do Arctic grayling in other Interior Alaska systems, like the Chena River that runs through Fairbanks. For this study, 50% maturity was estimated at 7 years and at about 300 mm fork length or 13-inch total length, compared with 5 years and 270 mm (12-inch total length) for the Chena River stock in TRMA.

Lake evaluations near the Dalton Highway commenced in 2023, and fish species presence and overall appearance and condition were noted. Bathymetry and water quality were also recorded for the sampled lakes. Among the lakes sampled was Grayling Lake. Although no radiotagged Arctic grayling were noted to travel to Grayling Lake during the 1997–1998 radiotelemetry study, the field crew sampled the lake during the time of spawning in 2023 and confirmed the presence of spawning Arctic grayling (Joe Spencer, ADF&G Division of Sport Fish, Fishery Biologist, Fairbanks, personal communication).

During 2000, a mark–recapture experiment was conducted in a 30-mile section of Beaver Creek and a separate study on Nome Creek to assess the Arctic grayling population (Fleming and McSweeny 2001). The abundance of Arctic grayling >250 mm fork length in the assessed area was 8,539 (SE = 959) fish. The Nome Creek tributary was assessed separately. Due to the inability to maintain geographic closure within the lower 5 miles (~8 km) of the Nome Creek portion of the mark–recapture experiment, Nome Creek was divided into upper and lower sections. An estimate of 419 (SE = 81) fish was reported for Upper Nome Creek, and no result could be calculated from the lower section due to a low number of recaptures. The area management biologists for the YMA have endeavored to maintain a total harvest of Arctic grayling below 10% of the estimated abundance for Beaver Creek (Burr 2015). Since 2014, harvest values within Beaver and Nome Creeks have not approached an interim management objective/goal/target of 1,000 fish (Table 8).

A 3-year, 2-phase radiotelemetry and mark–recapture project on Beaver and Nome Creek Arctic grayling within the Wild and Scenic portion of the Beaver Creek drainage in the WMNRA concluded in July 2023. Radiotelemetry techniques were used during 2021–2023 to locate and describe seasonal overwintering, spring spawning, and summer feeding areas, and to document migration timing to these areas. Information gathered from the radiotelemetry project was then used to identify an appropriate index area and timeframe for a 2023 mark–recapture experiment.[3] A project task was to collect water quality and physical habitat data in order to examine and characterize the seasonal locations. Overall, Arctic grayling showed a high behavioral plasticity.

[3] Stuby, L., and M. Tyers. *In prep*. Beaver and Nome Creeks Arctic Grayling Radiotelemetry and Stock Assessment, 2021-2023. Alaska Department of Fish and Game, Fishery Data Series, Anchorage. Hereafter referenced in text as Stuby and Tyers *In prep*.

Overwintering fish primarily occupied deep back eddies throughout Beaver Creek and in Lower Nome Creek. Shortly after ice-out, Arctic grayling migrated to spring spawning locations, which were primarily located in Upper Beaver Creek, Lower Nome Creek, and Wickersham Creek. Post-spawning Arctic grayling travelled to their oversummering locations, where approximately 50% returned to the exact location as noted in previous years, and the remainder occupied different locations. Overwintering and spring spawning fidelities were usually not as exact. Many locations within Beaver Creek were suitable for overwintering, spring spawning, and oversummering in close proximity, and as a result, some Arctic grayling showed little seasonal migration movements, whereas others exhibited longer seasonal migrations throughout the study area.

For the 2023 mark–recapture experiment, Beaver and Nome Creeks were stratified into the two drainages, and the results were 15,117 (SE = 2,146) fish and 1,631 (SE = 143) fish, respectively (Stuby and Tyers *In prep*). A population estimate for the section of Nome Creek that was sampled in 2023 was calculated at 1,082 (SE = 97) fish compared to the 2000 study, which was much lower, 419 (SE = 81) fish. Therefore, the 2023 abundance estimates for Beaver and Nome Creeks showed that this catch-and-release sport fishery has remained sustainable over the past 23 years. The information from this study will aid ADF&G and BLM managers in better understanding critical habitat areas and the availability of Arctic grayling to sport anglers, especially within the road-accessible Nome Creek tributary.

The area management biologist for the YMA, on request from the Western and Eastern Interior Regional Advisory Councils, deployed temperature data loggers in Jim and Kanuti Rivers during 2022 and retrieved the data the following year. These data are presented here for the first time because this was not an official project, and these data would otherwise go unpublished. The request was due to the 2019 record-breaking water temperatures in the Yukon River drainage, which were seen to cause a high mortality in summer chum salmon due to heat stress (Von Biela, et al. 2020). Meanwhile, during 2020, high water caused the Jim River to flood over the Dalton Highway. With climate change, concerns have arisen that future high water temperature events, as seen in 2019 and flooding in 2020, could also adversely affect resident species such as Arctic grayling. For the Kanuti River, during the warmest months of July and August 2022, temperatures reached a maximum of 18.6 °C, a minimum of 6.4 °C, and an average of 11.2 °C. The hottest date was on 11 July 2022. During the winter months of December to February 2022, water temperatures averaged 0.1 °C. During the ice out in 2023, the data logger washed ashore, and summer 2023 data was not recorded. For the Jim River, during July and August 2022, temperatures reached a maximum of 17.0 °C, a minimum of 4.8 °C, and an average of 9.2 °C. The warmest temperatures were also on 11 July 2022. The average winter temperature for the Jim River was 0.2 °C. Because the data logger remained in the Jim River after ice out, the data logger recorded temperatures for 2023 until the retrieval date of 8 August 2023. During July to the retrieval date, temperatures reached a maximum of 15.9 °C, a minimum of 5.9 °C, and an average of 11.1 °C. The warmest temperature was recorded on 25 July 2023. According to Lohr et al. (1996), the upper incipient lethal temperature for Arctic grayling is ~25 °C, depending on the system. The highest temperature recorded for this project was 18.6 °C for the Kanuti River, which was well below this limit.

With the inception of Federal subsistence management in 1999, many federal subsistence regulations were kept in line with SOA regulations, including subsistence closures and management of salmon resources. However, the Eastern and Western Interior Regional Advisory Councils have recently expressed their dismay at allowing sport fishing when subsistence fishing is closed, especially when subsistence needs have not been met due to recent poor salmon runs.

Within the YMA, federal and state subsistence closures in the road-accessible highways were in Nome Creek (Beaver Creek drainage) off of the Steese Highway, and the Jim and Kanuti Rivers and Bonanza Creek, which are accessed from the Dalton Highway. During 2023 and 2024, the Western Interior Regional Advisory Council voted to rescind the subsistence closures of the Dalton Highway drainages. During the 2024 and 2025 meetings of the Federal Subsistence Board, the federal subsistence closures were rescinded for the Jim and Kanuti Rivers and Bonanza Creek, and now federally qualified subsistence users can harvest 10 Arctic grayling per day in these streams. Per SOA regulations, the subsistence closures will remain. During 2024, the Eastern Interior Regional Advisory Council voted to shelve a proposal to rescind the subsistence closure for Nome Creek, so currently the subsistence closure will remain in place for Nome Creek, and sport anglers will still be allowed to catch-and-release Arctic grayling.

YUKON RIVER SHEEFISH

Fishery Description

Sheefish (inconnu) are the largest member of the whitefish family and are sought after by sport anglers for their size and fighting spirit. Sheefish in the Yukon River drainage are represented by both amphidromous and freshwater resident forms. Some sheefish are thought to be members of resident populations that restrict their lifetime geographic range to the drainage in which they spawn (Alt 1987). Others are anadromous and are known to make long-distance migrations to the brackish water near the mouth of the Yukon River following spawning, where they overwinter and travel upriver in spring (Brown and Burr 2012). During the open-water season, sheefish are primarily found at the mouths of major tributaries (Stuby 2018). Distribution of sport fishing effort is likewise widespread, with most sport utilization occurring during summer through fall. Sheefish spawn during late September/early October, and pre-spawning fish are often found near the mouths at or near tributary streams, including the Innoko, Koyukuk, Nulato, Porcupine, and Nowitna Rivers (Brown and Burr 2012; Table 9).

At present, there is little concern for overharvest of sheefish in the Yukon River drainage from sport fishing activity because the sport fishery for sheefish is currently widely distributed throughout the drainage, and harvest and catch levels are low.

Fishery Management Objectives

The general sport fish regulations for harvest of sheefish in the YMA in *Seasons, bag, possession, and size limits, and methods and means for the Yukon River Area* [5 AAC 73.010 (b) (6)] is a bag and possession limit of 10 fish, no size limit.

Because the sport fishery for sheefish is currently widely distributed throughout the drainage and catch and harvest levels are low, specific management objectives have not been identified. The goal of management is to maintain naturally reproducing, sustainable populations of sheefish with characteristics that are desirable to the angler, such as large size.

Recent Fishery Performance

Sheefish sport harvest and catch values during 2024 were 350 and 393, respectively, which represent an approximately 14-fold increase in both harvest and catch over 2023 (Table 9). However, the catch and harvest values are still relatively low and are reflected in the 10- and 5-year averages of harvest (84 and 96, respectively) and catch (367 and 471, respectively; Table 9).

Research and Management Activities

Multiyear studies using radiotelemetry techniques have verified known or identified new locations of spawning areas in the Yukon River drainage. To date, 6 specific spawning locations have been described in the following locations: Upper Innoko River, Alatna River (Koyukuk drainage), Sulukna River (Nowitna drainage), Chatanika River (Tanana River), mainstem Tanana River near Fairbanks, and mainstem Yukon River upstream of the Porcupine River (Alt 1969; Brown 2000; Gerken 2009; Esse 2011; Brown and Burr 2012; Gryska 2018). Additional spawning areas are thought to exist in the Porcupine (Black [Draanjik]) River, as well as the upper reaches of the mainstem Yukon River (Alt 1987), but specific locations have not been identified. Sheefish have been noted to spawn during late September/early October (Brown and Burr 2012; Stuby 2018). Currently, 2 genetically distinct groups are known to exist within the Yukon River drainage (Olsen et al. 2017).

Construction of new industrial roads for the development of mineral deposits near a known spawning area is of potential concern. The alignment of the proposed Ambler Mining District Industrial Access Road from the Dalton Highway to the Ambler area traverses the Alatna River, a Koyukuk River tributary, a short distance upstream of the sheefish spawning area. A 14-month radiotelemetry study was implemented in 2014 in the Upper Koyukuk River to gather information on the locations of seasonal habitats of freshwater fish, including sheefish, and their movements within the vicinity of the proposed road crossing (Wuttig et al. 2015). If the Ambler Road is constructed, due to the potential adverse impacts on 1 of the 6 known sheefish spawning areas in the Yukon River drainage, this spawning population will need to be closely monitored. Future research may include analysis of pre- and post-spawning migration timing, spawning population estimates, habitat monitoring, etc., to ensure sustainability.

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TABLES AND FIGURES

Table 1.–Number of Statewide Harvest Survey (SWHS) responses and angler effort for the Yukon Management Area (YMA) during 2014–2024.

	Year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Responses	36	14	15	18	15	**11**	**8**	14	**9**	13	**11**	15	11
Angler effort (days)	4,733	1,746	2,618	1,420	1,349	**1,943**	**688**	2,798	**1,815**	1,298	**2,242**	2,041	1,708
Koyukuk River to Fort Yukon													
Responses	63	67	81	58	44	45	41	45	39	36	37	52	41
Angler effort (days)	6,839	5,456	4,787	5,780	4,866	4,817	7,377	6,290	3,562	3,180	9,159	5,295	5,045
Upstream of Fort Yukon to the Canadian Border													
Responses	**8**	13	**4**	**11**	15	**11**	17	**3**	**9**	**11**	**6**	10	10
Angler effort (days)	**1,277**	737	**121**	**1,132**	957	**471**	2,046	**821**	**748**	**696**	**634**	901	956
Unspecified Yukon River Streams													
Responses	**2**	**3**	**1**	**5**	**4**	**6**	**1**	**1**	**2**	**7**	**3**	3	3
Angler effort (days)	**68**	**291**	**22**	**260**	**370**	**353**	**31**	**151**	**118**	**532**	**344**	220	237
Total Yukon Management Area													
Responses	109	97	101	92	78	73	67	63	59	67	57	81	66
Angler effort (days)	12,917	8,230	7,548	8,592	7,542	7,584	10,142	10,060	6,243	5,706	12,379	8,456	7,947

Source: Alaska Sport Fishing Survey database [Internet]. 1996–. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

Table 2.–Recreational angler effort, number of fish harvested, and total catch by species within the Yukon Management Area (YMA), 2014–2024.

Year	Angler effort (days)	Total fish	Pacific salmon						Resident Species								
			Total	Chinook	Coho	Sockeye	Pink	Chum	Total	Lake trout	DV/AC	Arctic grayling	Sheefish	Northern pike	Burbot	Whitefish	UNK[a]
								Harvest									
2014	12,917	6,225	1,959	0	1,639	0	0	320	4,266	25	167	2,498	95	1,184	277	20	0
2015	8,230	3,272	804	0	413	61	136	194	2,468	149	20	1,613	19	551	13	103	0
2016	7,548	2,422	398	0	29	35	70	264	2,024	75	84	1,005	73	681	91	15	0
2017	8,592	4,742	218	0	55	0	0	163	4,524	0	172	2,639	120	983	114	486	10
2018	7,542	2,459	266	0	62	0	19	185	2,193	0	16	1,332	49	744	0	52	0
2019	7,584	1,614	55	19	0	0	0	36	1,559	0	203	511	115	553	145	32	0
2020	10,142	7,028	2,941	0	1,257	0	0	1,684	4,087	21	15	981	111	2,025	604	330	0
2021	10,060	3,574	13	0	13	0	0	0	3,561	0	0	2,260	204	965	75	57	0
2022	6,243	1,522	63	0	63	0	0	0	1,459	34	0	1,076	23	200	102	24	0
2023	5,706	2,308	0	0	0	0	0	0	2,308	58	23	1,338	26	812	21	30	0
2024	12,379	2,983	0	0	0	0	0	0	2,983	0	0	919	350	971	269	474	0
Average																	
2014–2023	8,456	3,517	672	2	353	10	23	285	2,845	36	70	1,525	84	870	144	115	1
2019–2023	7,947	3,209	614	4	267	0	0	344	2,595	23	48	1,233	96	911	189	95	0
								Catch									
2014		68,160	12,270	156	10,479	143	258	1,234	55,890	25	4,305	31,839	470	18,805	337	81	28
2015		39,331	2,253	124	1,100	89	409	531	37,078	661	760	23,567	123	11,732	13	144	78
2016		35,069	4,000	268	29	66	2,753	884	31,069	238	1,782	11,563	304	16,648	91	54	389
2017		25,411	1,225	398	223	0	0	604	24,186	0	1,287	14,583	270	7,291	139	543	73
2018		23,799	4,655	141	318	0	1,597	2,599	19,144	81	624	9,658	147	8,523	0	111	0
2019		54,547	5,012	316	0	15	3,518	1,163	49,535	0	1,608	8,734	941	38,002	179	71	0
2020		18,049	3,216	24	1,332	0	0	1,860	14,833	31	114	8,119	622	4,918	626	403	0
2021		26,812	984	218	33	24	54	655	25,828	0	391	16,775	252	7,897	100	413	0
2022		8,982	193	0	125	47	0	21	8,789	120	0	5,700	516	2,257	147	24	25
2023		13,868	784	29	577	94	0	84	13,084	575	131	8,809	26	3,346	64	113	20
2024		24,236	1,569	353	451	438	0	327	22,667	33	72	8,389	393	12,361	362	1,057	0
Average																	
2014–2023		31,403	3,459	167	1,422	48	859	964	27,944	173	1,100	13,935	367	11,942	170	196	61
2019–2023		24,452	2,038	117	413	36	714	757	22,414	145	449	9,627	471	11,284	223	205	9

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

[a] Unidentified fish species.

Table 3.–Sport harvest and catch of Chinook salmon in the Yukon Management Area (YMA), 2014–2024.

	Year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Harvest subtotal	0	0	0	0	0	**19**	**0**	0	**0**	0	**0**	2	4
Anvik River	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Andreafsky River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Other streams	0	**0**	**0**	0	**0**	**19**	**0**	**0**	**0**	**0**	**0**	2	4
Catch subtotal	76	124	268	194	141	**316**	**0**	218	**0**	29	**0**	137	113
Anvik River	76	**59**	**163**	**26**	**102**	**0**	**0**	**218**	**0**	**29**	**0**	67	49
Andreafsky River	**0**	**0**	**105**	**0**	**22**	**279**	**0**	**0**	**0**	**0**	**0**	41	56
Other streams	0	**65**	**0**	168	**17**	**37**	**0**	**0**	**0**	**0**	**0**	29	7
Koyukuk River to Fort Yukon													
Harvest subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0
Porcupine River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Koyukuk River	0	0	0	0	0	**0**	0	0	0	**0**	0	0	0
Other streams	0	0	0	0	0	0	0	0	0	0	0	0	0
Catch subtotal	80	0	0	204	0	0	24	0	0	0	353	31	5
Porcupine River	**0**	**0**	**0**	**204**	**0**	**0**	**0**	**0**	**0**	**0**	**108**	20	0
Koyukuk River	0	0	0	0	0	**0**	0	0	0	**0**	0	0	0
Other streams	80	0	0	0	0	0	24	0	0	0	245	10	5
Upstream of Fort Yukon to the Canadian Border													
Harvest	**0**	0	**0**	**0**	0	**0**	0	**0**	**0**	**0**	**0**	0	0
Catch	**0**	0	**0**	**0**	0	**0**	0	**0**	**0**	**0**	**0**	0	0
Total harvest[a]	0	0	0	0	0	19	0	0	0	0	0	2	4
Total catch[a]	156	124	268	398	141	316	24	218	0	29	353	167	117

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

[a] Total may exceed the sum of subtotals because the fishing site(s) were not specified.

Table 4.–Sport harvest and catch of chum salmon in the Yukon Management Area (YMA), 2014–2024.

	Harvest year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Harvest subtotal	320	175	124	163	185	**36**	**0**	0	**0**	0	**0**	100	7
Anvik River	61	**78**	**109**	**163**	**185**	**36**	**0**	**0**	**0**	**0**	**0**	63	7
Andreafsky River	**0**	**97**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	11	0
Nulato River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Other streams	259	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	26	0
Catch subtotal	1,184	469	700	591	2,470	**1,139**	**0**	42	**21**	29	**91**	665	246
Anvik River	713	**274**	**571**	**430**	**2,470**	**142**	**0**	**42**	**21**	**29**	**56**	469	47
Andreafsky River	**0**	**195**	**129**	**0**	**0**	**890**	**0**	**0**	**0**	**0**	**0**	121	178
Nulato River	**0**	**0**	**0**	**161**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	16	0
Other streams	471	**0**	**0**	**0**	**0**	**107**	**0**	**0**	**0**	**0**	**35**	58	21
Koyukuk River to Fort Yukon													
Harvest subtotal	0	19	140	0	0	0	1,684	0	0	0	0	184	337
Porcupine River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Koyukuk River	0	0	0	0	0	**0**	0	0	0	**0**	0	0	0
Other streams	0	19	140	0	0	0	1,684	0	0	0	0	184	337
Catch subtotal	50	19	184	0	129	24	1,860	0	0	55	236	232	388
Porcupine River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Koyukuk River	0	0	44	0	129	**0**	0	0	0	**55**	0	23	11
Other streams	50	19	140	0	0	24	1,860	0	0	0	236	209	377
Upstream of Fort Yukon to the Canadian Border													
Harvest	**0**	0	**0**	**0**	0	**0**	0	**0**	**0**	**0**	**0**	0	0
Catch	**0**	0	**0**	**0**	0	**0**	0	**0**	**0**	**0**	**0**	0	0
Total harvest[a]	320	194	264	163	185	36	1,684	0	0	0	0	285	344
Total catch[a]	1,234	531	884	604	2,599	1,163	1,860	655	21	84	327	964	757

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

[a] Total may exceed the sum of subtotals because the fishing site(s) were not specified.

Table 5.–Sport harvest and catch of coho salmon in the Yukon Management Area (YMA), 2014–2024.

	Catch year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Harvest subtotal	1,639	413	11	0	62	**0**	**0**	13	**63**	0	**0**	220	15
Anvik River	1,284	**248**	**0**	**0**	**0**	**0**	**0**	**13**	**63**	**0**	**0**	161	15
Andreafsky River	**0**	**0**	**11**	**0**	**62**	**0**	**0**	**0**	**0**	**0**	**0**	7	0
Nulato River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Other streams	355	**165**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	52	0
Catch subtotal	10,479	1,100	11	29	306	**0**	**0**	33	**125**	577	**451**	1,266	147
Anvik River	8,959	**804**	**11**	**0**	**196**	**0**	**0**	**33**	**125**	**577**	**397**	1,071	147
Andreafsky River	**0**	**0**	**0**	**29**	**62**	**0**	**0**	**0**	**0**	**0**	**54**	9	0
Nulato River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Other streams	1,520	**296**	**0**	**0**	**48**	**0**	**0**	**0**	**0**	**0**	**0**	186	0
Koyukuk River to Fort Yukon													
Harvest subtotal	0	0	18	55	0	0	1,257	0	0	0	0	133	251
Porcupine River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Koyukuk River	0	0	0	0	0	**0**	0	0	0	**0**	0	0	0
Other streams	0	0	18	55	0	0	1,257	0	0	0	0	133	251
Catch subtotal	0	0	18	178	0	0	1,332	0	0	0	0	153	266
Porcupine River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Koyukuk River	0	0	0	0	0	**0**	0	0	0	**0**	0	0	0
Other streams	0	0	18	178	0	0	1,332	0	0	0	0	153	266
Upstream of Fort Yukon to the Canadian Border													
Harvest	**0**	0	**0**	**0**	0	**0**	0	**0**	**0**	**0**	**0**	0	0
Catch	**0**	0	**0**	**0**	0	**0**	0	**0**	**0**	**0**	**0**	0	0
Total harvest[a]	1,639	413	29	55	62	0	1,257	13	63	0	0	353	267
Total catch[a]	10,479	1,100	29	223	318	0	1,332	33	125	577	451	1,422	413

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

[a] Total may exceed the sum of subtotals because the fishing site(s) were not specified.

Table 6.–Sport harvest and catch of northern pike in the Yukon Management Area (YMA), 2014–2024.

	Harvest year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Subtotal	197	223	111	90	112	**79**	**1,210**	142	**107**	201	**0**	247	348
Nulato River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Kaiyuh/Khotol River	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2	0
Anvik River	20	**0**	**66**	**66**	**61**	**0**	**25**	**0**	**0**	**0**	**0**	24	5
Innoko River	**71**	**20**	**0**	**8**	**51**	**0**	**10**	**76**	**107**	**77**	**0**	42	54
Andreafsky River	**53**	**203**	**45**	**0**	**0**	**0**	**0**	**66**	**0**	**0**	**0**	37	13
Other	**53**	**0**	**0**	**0**	**0**	**79**	**1,175**	**0**	**0**	**124**	**0**	143	276
Koyukuk River to Fort Yukon													
Subtotal	987	279	556	870	430	375	775	784	93	477	971	563	501
Porcupine River	**136**	**0**	**0**	**422**	**147**	**0**	**25**	**10**	**0**	**187**	**0**	93	44
Chandalar River	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**482**	**0**	**0**	**0**	50	96
Birch Creek (Steese Hwy)	**29**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	4	2
Beaver and Nome Creeks	**0**	**0**	**0**	33	**0**	**39**	**0**	**0**	**0**	**0**	**0**	7	8
Dall River	**0**	**0**	**15**	**82**	**14**	**18**	**431**	**61**	**16**	**248**	**457**	89	155
Dalton Hwy streams	0	0	0	0	**15**	**95**	**251**	193	**0**	0	39	55	108
Nowitna River	**0**	**124**	**59**	**11**	**36**	**131**	**33**	**0**	**11**	**0**	**30**	41	35
Melozitna River	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2	0
Koyukuk River[a]	**14**	**0**	**106**	**0**	**61**	**0**	**0**	**38**	**66**	**32**	**197**	32	27
Other	794	**155**	376	**306**	**157**	**92**	**25**	**0**	**0**	**10**	**248**	192	25
Upstream of Fort Yukon to the Canadian Border													
Subtotal	**0**	49	**14**	**23**	184	**99**	40	**39**	**0**	**93**	**0**	54	54
Kandik River	**0**	**0**	**14**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3	0
Other	**0**	**49**	**0**	**7**	**184**	**99**	**40**	**39**	**0**	**93**	**0**	51	54
Total[b]	1,184	551	681	983	744	553	2,025	965	200	812	971	870	911

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Table 6.–Page 2 of 2.

	Catch year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Subtotal	13,558	10,008	8,770	1,852	3,904	**6,667**	**2,792**	4,792	**1,085**	1,039	**6,110**	5,447	3,275
Nulato River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**304**	0	0
Kaiyuh/Khotol River	**0**	**0**	**0**	**614**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	61	0
Anvik River	2,717	**216**	**916**	**181**	**190**	**71**	**55**	**451**	**135**	**74**	**485**	501	157
Innoko River	**9,467**	**8,806**	**7,418**	**1,041**	**3,235**	**263**	**1,142**	**3,560**	**950**	**800**	**5,048**	3,668	1,343
Andreafsky River	**1,321**	**850**	**414**	**0**	**34**	**5,342**	**0**	**66**	**0**	**0**	**0**	803	1,082
Other	**53**	**136**	**22**	**16**	**445**	**991**	**1,595**	**715**	**0**	**165**	**273**	414	693
Koyukuk River to Fort Yukon													
Subtotal	5,247	1,675	7,864	4,384	3,611	30,981	1,874	3,066	1,127	1,292	6,251	6,112	7,668
Porcupine River	**661**	**0**	**0**	**785**	**147**	**0**	**75**	**10**	**0**	**206**	**0**	188	58
Chandalar River	**1,612**	**581**	**76**	**166**	**459**	**0**	**0**	**482**	**0**	**281**	**0**	366	153
Birch Creek (Steese Hwy)	**0**	**25**	**11**	**42**	**0**	**195**	**15**	**0**	**79**	**0**	**144**	37	58
Beaver and Nome Creeks	**0**	**0**	**0**	47	**0**	**290**	**66**	**0**	**0**	**0**	**0**	40	71
Dall River	**0**	**0**	**276**	**276**	**608**	**29,344**	**743**	**1,300**	**268**	**689**	**4,681**	3,350	6,469
Dalton Hwy streams	399	194	34	66	**15**	**226**	**298**	250	**0**	0	39	148	155
Nowitna River	**0**	**371**	**1,541**	**11**	**453**	**546**	**123**	**482**	**547**	**0**	**97**	407	340
Melozitna River	**0**	**0**	**96**	**16**	**0**	**122**	**0**	**0**	**0**	**0**	**0**	23	24
Koyukuk River[a]	**872**	**504**	**2,780**	**0**	**724**	**39**	**101**	**428**	**111**	**32**	**929**	559	142
Other	1,703	**0**	3,050	**2,975**	**1,205**	**219**	**453**	**114**	**122**	**84**	**361**	993	198
Upstream of Fort Yukon to the Canadian Border													
Subtotal	**0**	49	**14**	**156**	184	**298**	252	**39**	**45**	**932**	**0**	197	313
Kandik River	**0**	**0**	**14**	**49**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	6	0
Other	**0**	**49**	**0**	**107**	**184**	**298**	**252**	**39**	**45**	**932**	**0**	191	313
Total[b]	18,805	11,732	16,648	7,291	8,523	38,002	4,918	7,897	2,257	3,346	12,361	11,942	11,284

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

[a] Not accessed from the Dalton Highway.

[b] Total may exceed the sum of subtotals because the fishing site(s) were not specified.

Table 7.–Total fishing effort (angler-days), and northern pike catch and harvest from principal sport fisheries in the Yukon Management Area (YMA), 2014–2024.

Year	Total[a]	Innoko River			Nowitna River			Dall River		
		Effort	Number	Percent[b]	Effort	Number	Percent[b]	Effort	Number	Percent[b]
					Harvest					
2014	1,184	**1,242**	**71**	**6%**	**30**	**0**	**0%**	**0**	**0**	**0%**
2015	551	**497**	**20**	**4%**	**434**	**124**	**23%**	**0**	**0**	**0%**
2016	681	**668**	**0**	**0%**	**473**	**59**	**9%**	**195**	**15**	**2%**
2017	983	**358**	**8**	**1%**	**71**	**11**	**1%**	**232**	**82**	**8%**
2018	744	**500**	**51**	**7%**	**119**	**36**	**5%**	**116**	**14**	**2%**
2019	553	**170**	**0**	**0%**	**673**	**131**	**24%**	**1,114**	**18**	**3%**
2020	2,025	**213**	**10**	**0%**	**518**	**33**	**2%**	**394**	**431**	**21%**
2021	965	**664**	**76**	**8%**	**103**	**0**	**0%**	**391**	**61**	**6%**
2022	200	**1,343**	**107**	**54%**	**431**	**11**	**6%**	**268**	**16**	**8%**
2023	812	**463**	**77**	**9%**	**0**	**0**	**0%**	**412**	**248**	**31%**
2024	971	**343**	**0**	**0%**	**213**	**30**	**3%**	**180**	**457**	**47%**
Average										
2014–2023	870	612	42	9%	285	41	7%	312	89	8%
2019–2023	911	571	54	14%	345	35	6%	516	155	14%
					Catch					
2014	18,805	**1,242**	**9,467**	**50%**	**30**	**0**	**0%**	**0**	**0**	**0%**
2015	11,732	**497**	**8,806**	**75%**	**434**	**371**	**3%**	**0**	**0**	**0%**
2016	16,648	**668**	**7,418**	**45%**	**473**	**1,541**	**9%**	**195**	**276**	**2%**
2017	7,291	**358**	**1,041**	**14%**	**71**	**11**	**0%**	**232**	**276**	**4%**
2018	8,523	**500**	**3,235**	**38%**	**119**	**453**	**5%**	**116**	**608**	**7%**
2019	38,002	**170**	**263**	**1%**	**673**	**546**	**1%**	**1,114**	**29,344**	**77%**
2020	4,918	**213**	**1,142**	**23%**	**518**	**123**	**3%**	**394**	**743**	**15%**
2021	7,897	**664**	**3,560**	**45%**	**103**	**482**	**6%**	**391**	**1,300**	**16%**
2022	2,257	**1,343**	**950**	**42%**	**431**	**547**	**24%**	**268**	**268**	**12%**
2023	3,346	**463**	**800**	**24%**	**0**	**0**	**0%**	**412**	**689**	**21%**
2024	12,361	**343**	**5,048**	**41%**	**213**	**97**	**1%**	**180**	**4,681**	**38%**
Average										
2014–2023	11,942	612	3,668	36%	285	407	5%	312	3,350	15%
2019–2023	11,284	571	1,343	27%	345	340	7%	516	6,469	28%

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

[a] Total harvest of northern pike in the Yukon Management Area.

[b] Percent of total harvest of Northern pike in the Yukon Management Area.

Table 8.–Sport harvest and catch of Arctic grayling in the Yukon Management Area (YMA), 2014–2024.

	Harvest year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Subtotal	361	425	78	369	72	**42**	**0**	1,102	**223**	359	**319**	303	345
Nulato River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Anvik River	223	**118**	**78**	**113**	**52**	**0**	**0**	**1,054**	**223**	**219**	**229**	208	299
Innoko River	**80**	**0**	**0**	**0**	**0**	**21**	**0**	**48**	**0**	**43**	**0**	19	22
Andreafsky River	**38**	**288**	**0**	**39**	**0**	**21**	**0**	**0**	**0**	**0**	**0**	39	4
Other	**20**	**19**	**0**	**217**	**20**	**0**	**0**	**0**	**0**	**97**	**90**	37	19
Koyukuk River to Fort Yukon													
Subtotal	844	798	927	2,125	1,017	429	101	1,158	853	781	510	903	664
Porcupine River	**101**	**0**	**0**	**583**	**0**	**0**	**7**	**831**	**197**	**113**	**0**	183	230
Birch Creek (Steese Hwy)	**52**	**78**	**172**	**68**	**107**	**24**	**64**	**0**	**199**	**0**	**191**	76	57
Beaver and Nome Creeks	**0**	**174**	**52**	460	**81**	**50**	**0**	**125**	**0**	**0**	**0**	94	35
Dalton Highway streams[a]	**279**	112	101	**12**	**372**	**78**	**10**	**0**	**110**	**20**	**90**	109	44
Jim River	**179**	171	297	55	**46**	**0**	**0**	**99**	**208**	**404**	**229**	146	142
Koyukuk River[b]	**50**	**225**	**31**	**39**	**84**	**0**	**8**	**0**	**139**	**0**	**0**	58	29
Other	183	**38**	274	908	**327**	277	12	**103**	**0**	**244**	0	237	127
Upstream of Fort Yukon to the Canadian Border													
Subtotal	**1,293**	179	**0**	**145**	243	**0**	880	**0**	**0**	**150**	**0**	289	206
Fortymile River	**0**	**96**	**0**	**81**	**157**	**0**	**766**	**0**	**0**	**150**	**0**	125	183
Charley River	**48**	**0**	**0**	**0**	**40**	**0**	**26**	**0**	**0**	**0**	**0**	11	5
Kandik River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Other	**1,245**	**83**	**0**	**64**	**46**	**0**	**88**	**0**	**0**	**0**	**0**	153	18
Total Yukon harvest[c]	2,498	1,613	1,005	2,639	1,332	511	981	2,260	1,076	1,338	919	1,525	1,233

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Table 8.–Page 2 of 2.

	Catch year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Subtotal	17,974	7,974	2,812	1,359	2,118	**2,457**	**77**	6,523	**2,339**	1,865	**3,126**	4,550	2,652
Nulato River	**0**	**0**	**0**	**480**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	48	0
Anvik River	15,340	**6,860**	**2,791**	**371**	**1,916**	**0**	**0**	**6,475**	**2,228**	**1,031**	**2,502**	3,701	1,947
Innoko River	**1,105**	**0**	**0**	**194**	**0**	**60**	**77**	**48**	**0**	**107**	**0**	159	58
Andreafsky River	**1,509**	**1,056**	**21**	**97**	**0**	**2,084**	**0**	**0**	**0**	**0**	**174**	477	417
Other	**20**	**58**	**0**	**217**	**202**	**313**	**0**	**0**	**111**	**727**	**420**	165	230
Fort Yukon to Koyukuk River													
Subtotal	12,090	9,268	8,677	11,304	6,151	5,644	1,175	10,160	3,132	4,044	4,706	7,165	4,831
Porcupine River	**935**	**41**	**0**	**583**	**0**	**0**	**156**	**4,209**	**646**	**113**	**0**	668	1,025
Birch Creek (Steese Hwy)	**220**	**1,528**	**1,153**	**803**	**610**	**1,098**	**367**	**375**	**622**	**0**	**601**	678	492
Beaver and Nome Creeks	**4,724**	**2,387**	**597**	3,701	**1,537**	**1,498**	**89**	**3,588**	**238**	**966**	**2,284**	1,933	1,276
Dalton Highway streams[a]	**2,734**	1,489	828	**155**	**2,051**	**603**	**132**	**344**	**296**	**307**	**1,151**	894	336
Jim River	**1,784**	1,685	4,231	**1,432**	**162**	**171**	**123**	**1,391**	**832**	**1,675**	**575**	1,349	838
Koyukuk River[b]	**102**	**1,037**	**72**	**78**	**461**	**0**	**96**	**150**	**301**	**0**	**0**	230	109
Other	1,591	**1,101**	1,796	4,552	**1,330**	2,274	212	**103**	**197**	**983**	95	1,414	754
Upstream of Fort Yukon to the Canadian Border													
Subtotal	**1,775**	1,855	**74**	**1,920**	1,389	**494**	6,817	**92**	**229**	**500**	**377**	1,515	1,626
Fortymile River	**40**	**190**	**0**	**81**	**278**	**327**	**6,275**	**92**	**190**	**212**	**0**	769	1,419
Charley River	**96**	**0**	**0**	**501**	**605**	**0**	**126**	**0**	**39**	**0**	**0**	137	33
Kandik River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Other	**1,639**	**1,665**	**74**	**1,338**	**506**	**167**	**416**	**0**	**0**	**288**	**377**	609	174
Total catch[c]	31,839	23,567	11,563	14,583	9,658	8,734	8,119	16,775	5,700	8,809	8,389	13,935	9,627

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

[a] Streams accessed from the Dalton Highway, excluding the Jim River.

[b] Koyukuk River drainage waters, excluding Jim River and streams accessed from the Dalton Highway.

[c] Total may exceed the sum of subtotals because the fishing site(s) were not specified.

Table 9.–Sport harvest and catch of sheefish in the Yukon Management Area (YMA), 2014–2024.

	Harvest year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Subtotal	25	0	0	8	0	**18**	**8**	204	**0**	0	**102**	26	46
Nulato River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**151**	**0**	**0**	**0**	15	30
Innoko River	**18**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**34**	3	2
Andreafsky River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**43**	**0**	**0**	**0**	4	9
Other	**7**	**0**	**0**	**8**	**0**	**18**	**0**	**10**	**0**	**0**	**68**	4	6
Fort Yukon to Koyukuk River													
Subtotal	70	19	73	105	40	77	78	0	23	26	248	51	41
Porcupine River	**36**	**0**	**0**	**86**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	13	1
Birch Creek (Steese Hwy)	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**0**	**0**	**0**	**0**	3	5
Dall River	**0**	**0**	**0**	**0**	**0**	**46**	**0**	**0**	**0**	**9**	**0**	6	11
Ray River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Nowitna River	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**23**	**0**	**0**	5	10
Koyukuk River	0	**19**	20	0	0	**0**	0	0	0	**0**	0	4	0
Other	34	**0**	53	19	**40**	31	25	0	**0**	11	248	21	13
Upstream of Fort Yukon to the Canadian Border													
Subtotal	**0**	0	**0**	**7**	9	**0**	25	**0**	**0**	**0**	**0**	4	5
Charley River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Other	**0**	**0**	**0**	**7**	9	**0**	25	**0**	**0**	**0**	**0**	4	5
Total[a]	95	19	73	120	49	115	111	204	23	26	350	84	96

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Table 9.–Page 2 of 2.

	Catch year											Averages	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014–2023	2019–2023
Downstream from the Koyukuk River													
Subtotal	167	58	32	41	19	**275**	**212**	223	**0**	0	**136**	103	142
Nulato River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**151**	**0**	**0**	**0**	15	30
Innoko River	**160**	**19**	**32**	**0**	**19**	**97**	**206**	**19**	**0**	**0**	**68**	55	64
Andreafsky River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**43**	**0**	**0**	**0**	4	9
Other streams	**7**	**39**	**0**	**41**	**0**	**178**	**6**	**10**	**0**	**0**	**68**	28	39
Fort Yukon to Koyukuk River													
Subtotal	303	65	272	222	119	646	228	29	470	26	257	238	280
Porcupine River	**136**	**0**	**0**	**173**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	32	1
Birch Creek (Steese Hwy)	**0**	**0**	**0**	**0**	**0**	**58**	**25**	**0**	**26**	**0**	**9**	11	22
Dall River	**0**	**0**	**0**	**0**	**8**	**306**	**50**	**0**	**26**	**9**	**0**	40	78
Ray River	**0**	**0**	**8**	**0**	**0**	**0**	**75**	**0**	**0**	**0**	**104**	8	15
Nowitna River	**0**	**19**	**143**	**0**	**0**	**19**	**28**	**29**	**191**	**0**	**0**	43	53
Koyukuk River	0	**39**	20	0	0	**0**	0	0	0	**0**	0	6	0
Other	167	**7**	101	49	**111**	263	50	0	**227**	11	144	99	110
Upstream of Fort Yukon to the Canadian Border													
Subtotal	**0**	0	**0**	**7**	9	**0**	182	**0**	**46**	**0**	**0**	24	46
Charley River	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
Other	**0**	**0**	**0**	**7**	9	**0**	182	**0**	**46**	**0**	**0**	24	46
Total[a]	470	123	304	270	147	941	622	252	516	26	393	367	471

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

[a] Total may exceed the sum of subtotals because the fishing site(s) were not specified.

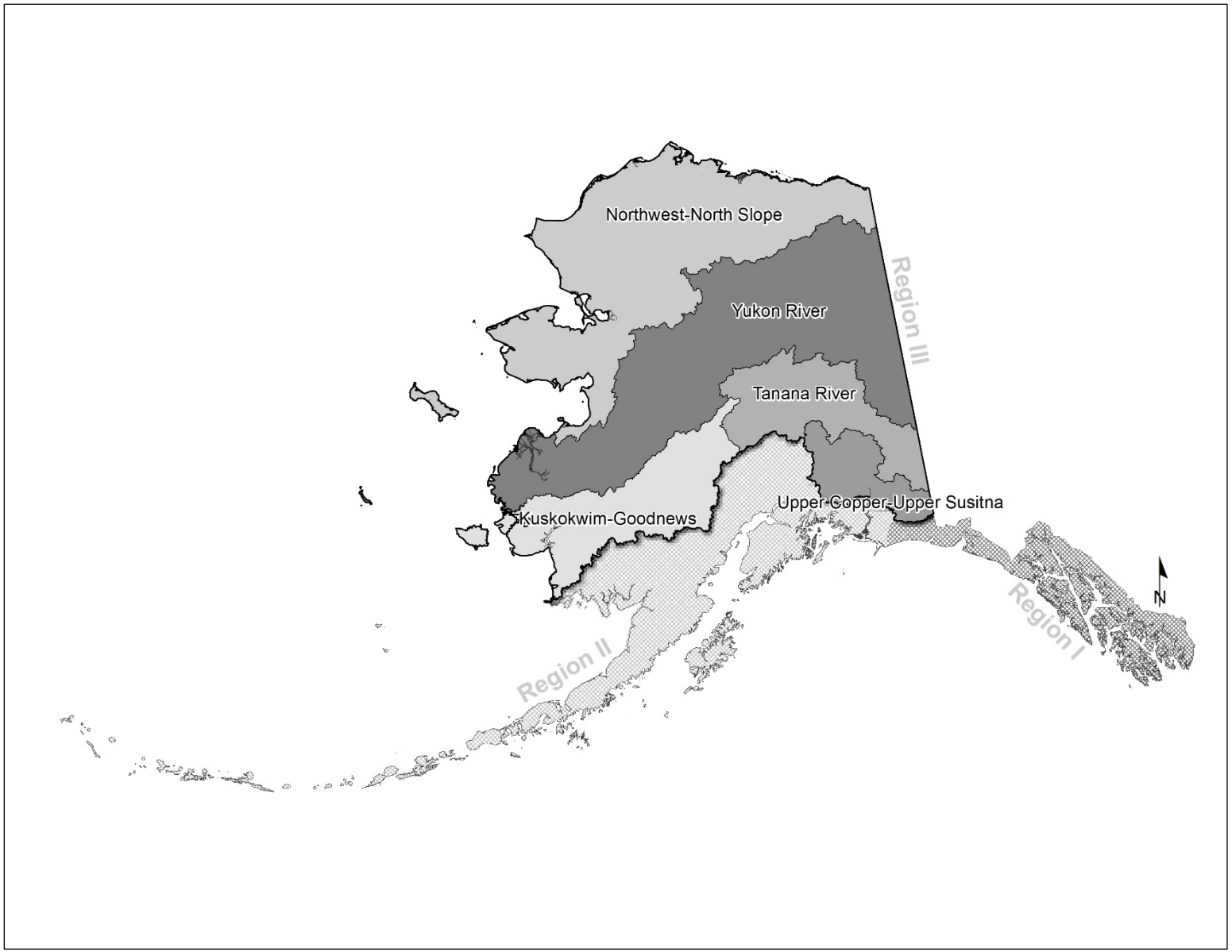

Figure 1.–Map of the sport fish regions in Alaska and the 5 management areas in Region III.

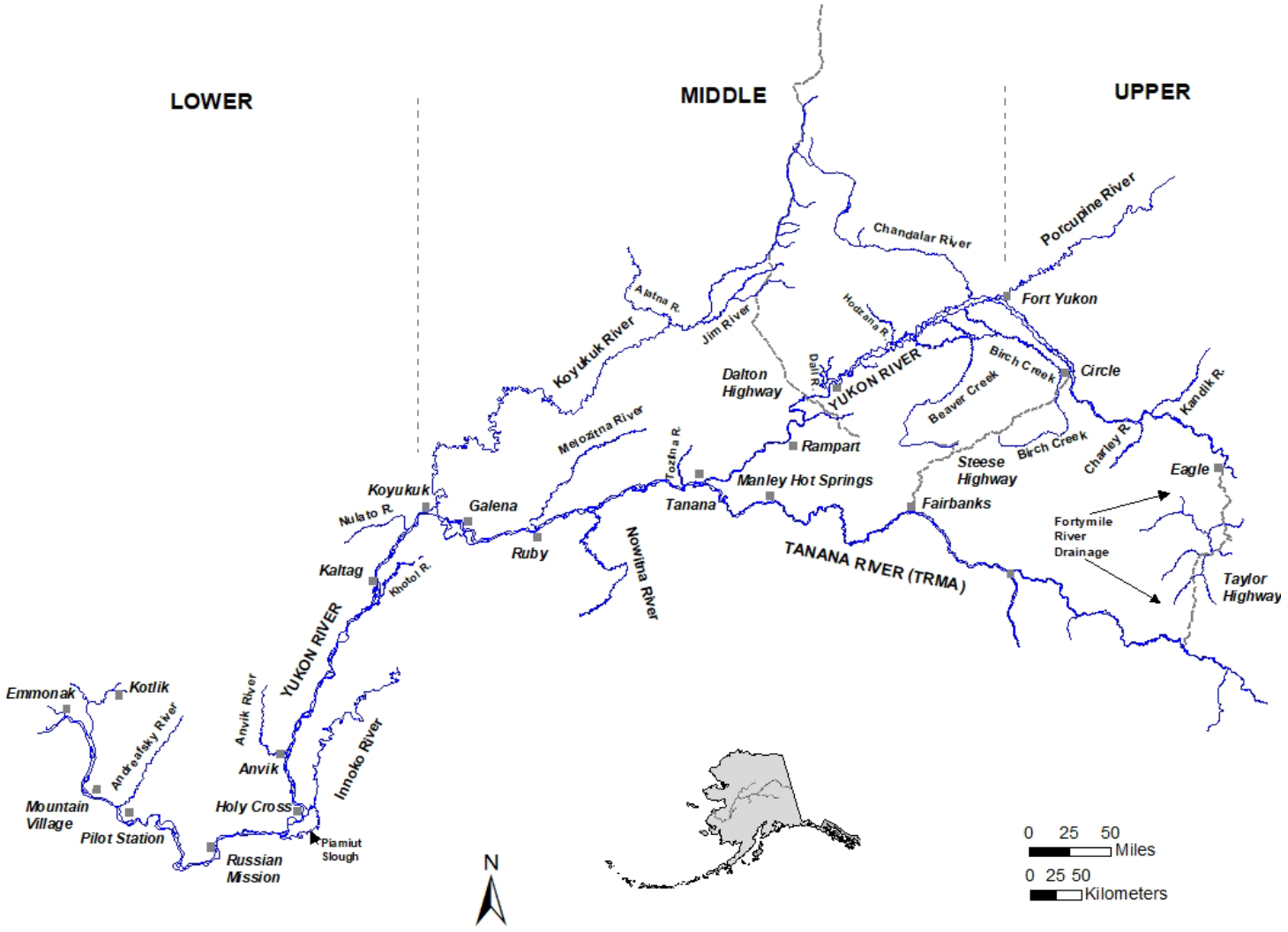

Figure 2.–Yukon River drainage delineating the Lower (downstream from the Koyukuk River), Middle (Koyukuk River to Fort Yukon), and Upper (upstream of Fort Yukon to the Canadian Border) portions of the Yukon Management Area. The Tanana River is managed separately.

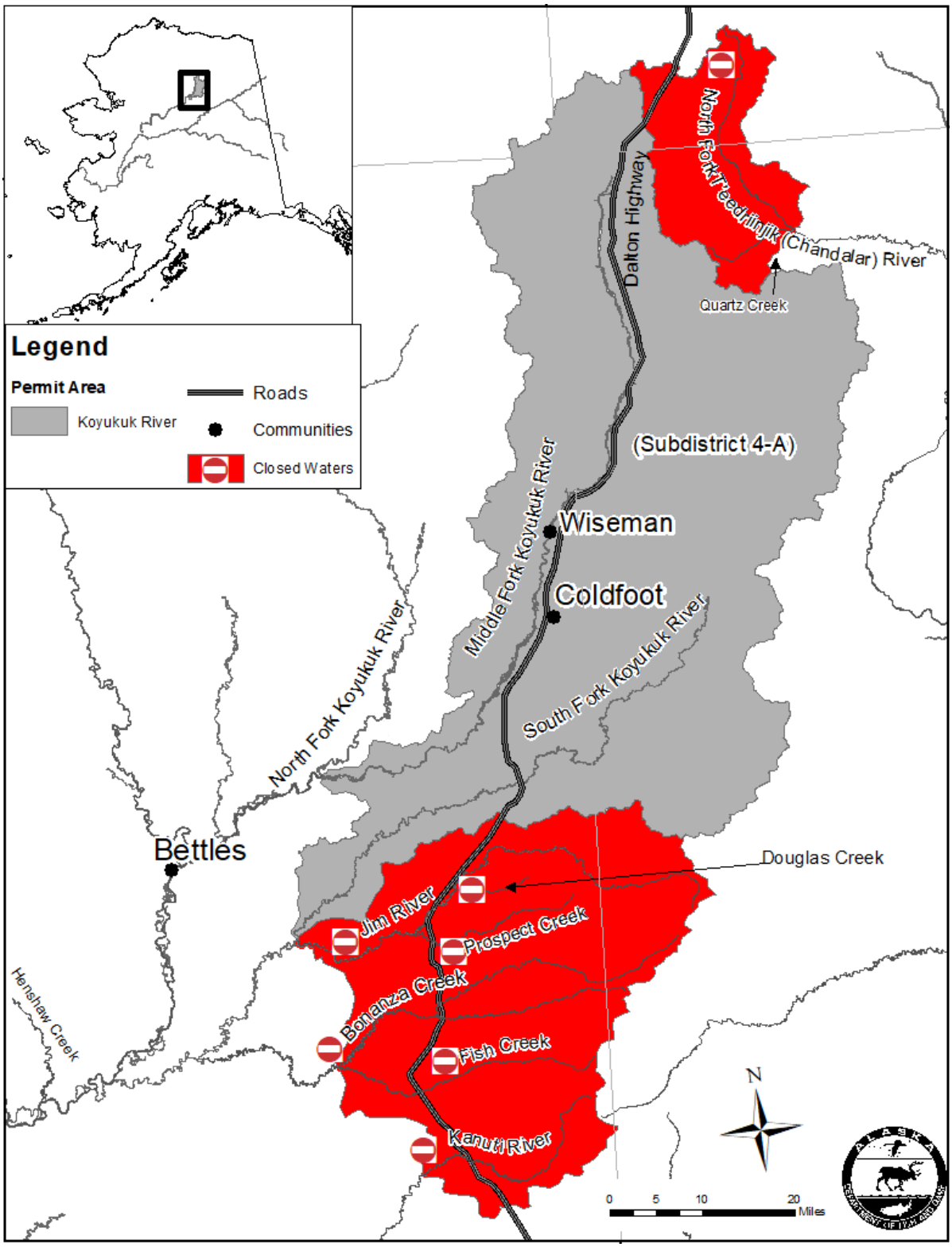

Figure 3.–Koyukuk River subsistence permit area. The waters closed to subsistence are open to sport fishing.

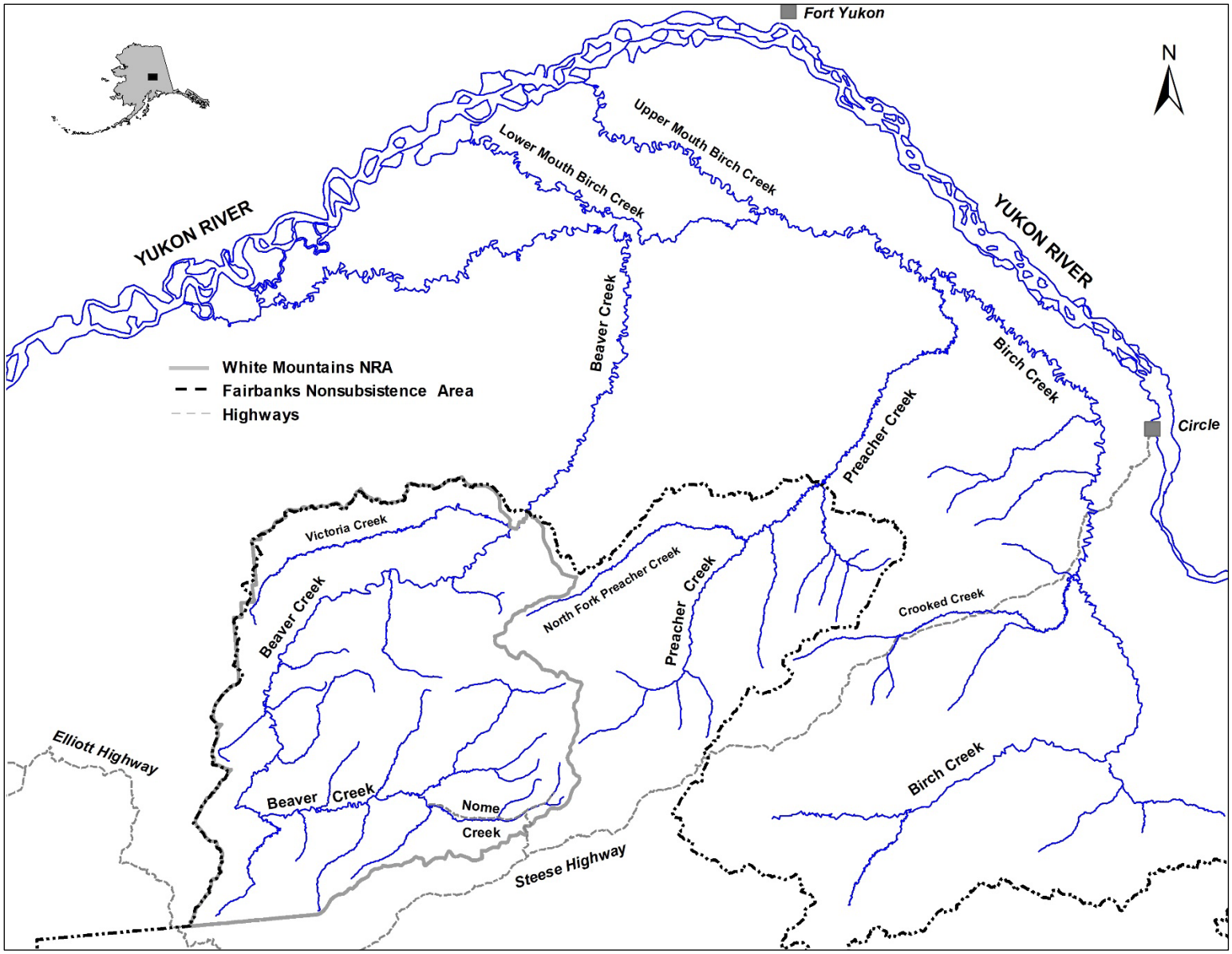

Figure 4.–The portion of the Yukon Management Area (YMA) that is located within the Fairbanks Nonsubsistence Area.

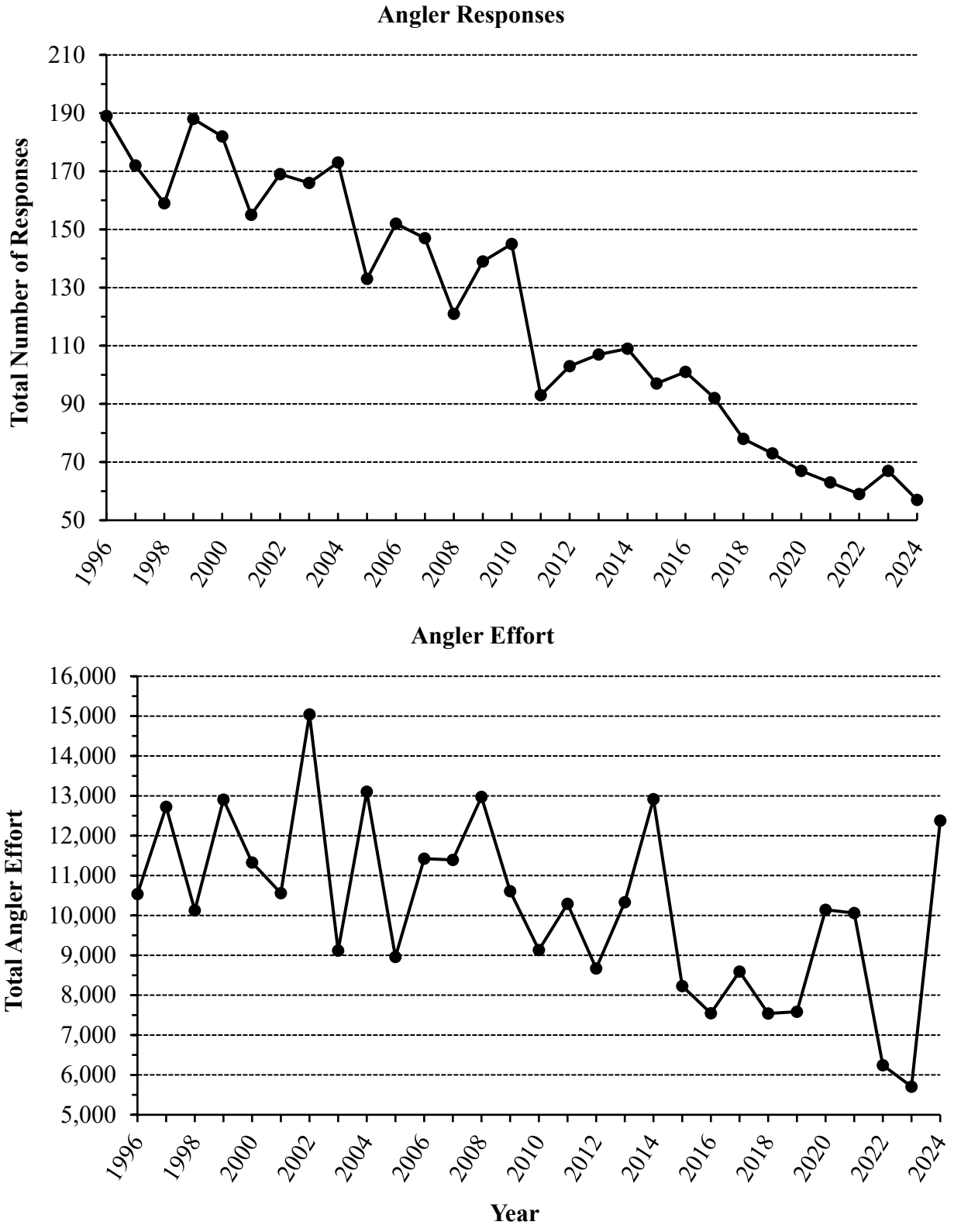

Figure 5.–Total number of Statewide Harvest Survey (SWHS) responses and angler effort for the Yukon Management Area (YMA) during 1996–2024.

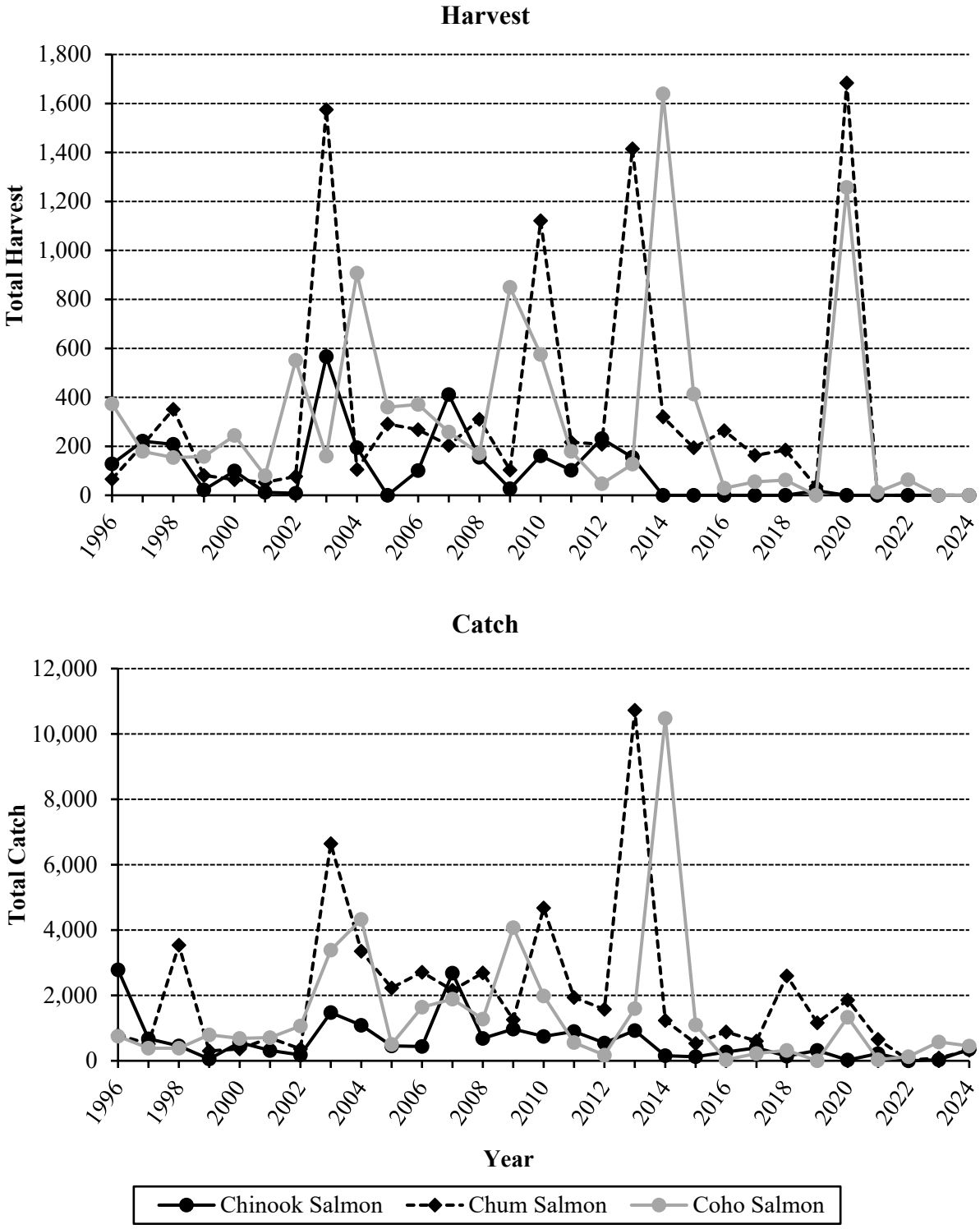

Figure 6.–Chinook, chum, and coho salmon harvest in the Yukon Management Area (YMA) during 1996–2024.

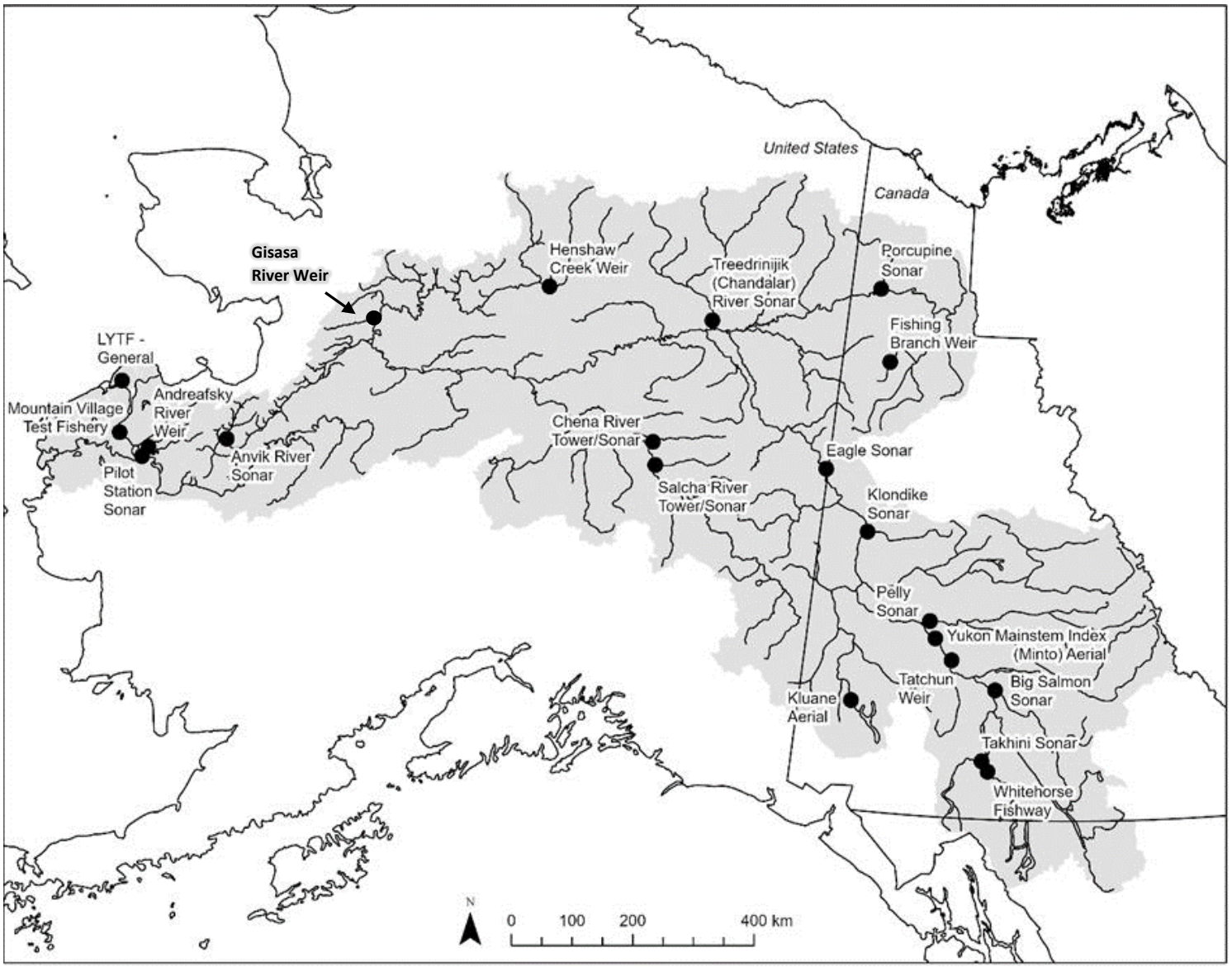

Figure 7.–Assessment projects operated in the U.S. and Canada to primarily assess Chinook, summer, and/or fall chum, and coho salmon.

APPENDIX A:
2010–2025 CHINOOK, CHUM, AND COHO SALMON HARVEST INFORMATION AND EMERGENCY ORDERS

Appendix A1.–Chinook salmon harvest information and yearly emergency orders (EO) for the Yukon Management Area (YMA), 2010–2025.

Year	Sport harvest	Sport catch	EO Number	EO Summary
2010	161	745	_	NONE
2011	102	899	3-KS-02-11	Daily bag and possession limit reduced to one Chinook salmon in all tributaries of the YMA, effective 12:01 AM, Thursday, June 2, 2011. This EO also closed the mainstem Yukon River to sport fishing for Chinook salmon, effective 12:01 AM, Thursday, June 2, 2011.
2012	231	544	3-KS-02-12	Daily bag and possession limit reduced to one Chinook salmon in all tributaries of the YMA, effective 12:01 AM, Tuesday, May 15, 2012. This EO also closed the mainstem Yukon River to sport fishing for Chinook salmon, effective 12:01 AM, Tuesday, May 15, 2012.
2013	155	927	3-KS-01-13	The mainstem Yukon River of the YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Wednesday, May 22, 2013. This EO also prohibited the retention of Chinook salmon in all tributaries of the Yukon River effective 12:01 AM, Wednesday, May 22, 2013, through Sunday, June 30, 2013. All tributaries were to reopen with a reduced bag limit of one Chinook salmon, effective 12:01 AM, Monday, July 1, 2013.
2013	155	927	3-KS-09-13	All tributaries of the YMA were closed to the retention of Chinook salmon, effective 12:01 AM, Friday, July 12, 2013. This EO prohibited the harvest of Chinook salmon and the use of bait while sport fishing in these tributaries. This EO also continued the closure of the mainstem Yukon River to sport fishing for Chinook salmon.
2013	155	927	3-KS-11-13	The prohibition of the use of bait in all tributaries of the YMA was rescinded, and these tributaries were reopened to sport fishing for Chinook salmon under a reduced bag limit of one Chinook salmon, effective 12:01 AM, Wednesday, July 24, 2013. Sport fishing for Chinook salmon in the mainstem Yukon River remained closed.
2014	0	156	3-KS-02-14	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Monday, May 12, 2014.
2015	0	124	3-KS-02-15	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Monday, May 11, 2015.

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Year	Sport harvest	Sport catch	EO Number	EO Summary
2016	0	268	3-KS-03-16	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Friday, April 29, 2016.
2017	0	398	3-KS-Y-03-17	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Monday, May 1, 2017.
2017	0	398	3-KS-Y-6-17	Effective June 26, all Chinook salmon sport fisheries in the YMA reopened with a bag and possession limit of one fish and an annual limit of one Chinook salmon 20 inches or greater in length.
2018	0	141	3-KS-Y-03-18	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Friday, May 11, 2018.
2019	19	316	3-KS-Y-03-19	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Saturday, May 11, 2019.
2019	19	316	3-KS-Y-05-19	Effective July 11, 2019, the YMA Chinook salmon sport fishery reopened with a bag and possession limit of one fish 20 inches or greater in length and an annual limit of one fish 20 inches or greater in length.
2020	0	24	3-KS-Y-2-2020	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Monday, May 11, 2020.
2021	0	209	3-KS-Y-2-2021	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Monday, May 10, 2021.
2022	0	0	3-KS-Y-4-2022	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Monday, May 1, 2022.
2023	0	0	3-KS-Y-3-2023	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Wednesday, April 5, 2023.
2024	0	353	3-KS-Y-1-2024	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Thursday, March 21, 2024.
2025	–	–	3-KS-Y-1-2025	The YMA was closed to sport fishing for Chinook salmon, effective 12:01 AM, Thursday, March 31, 2025.

Appendix A2.–Chum salmon harvest information and yearly emergency orders (EO) for the Yukon Management Area (YMA), 2010–2025.

Year	Sport harvest	Sport catch	EO Number	EO Summary
2010	1,121	4,677	3-CS-02-10	The YMA was closed to sport fishing for chum salmon, effective 12:01 AM, Friday, August 20, 2010.
2011	217	1,938	–	NONE
2012	208	1,576	–	NONE
2013	1,415	10,725	–	NONE
2014	320	1,234	–	NONE
2015	194	531	–	NONE
2016	264	884	3-CS-11-16	The YMA was closed to sport fishing for chum salmon in the mainstem Porcupine River effective 12:01 AM, Thursday, September 1, 2016. Tributaries such as the Sheenjek, Black, Coleen, and Salmon Trout Rivers remained open.
2017	163	604	–	NONE
2018	185	2,599	3-CS-Y-1-18	The YMA was closed to sport fishing for chum salmon in the mainstem Porcupine River effective 12:01 AM, Wednesday, October 3, 2018. Tributaries such as the Sheenjek, Black, Coleen, and Salmon Trout Rivers remained open.
2019	36	1,163	–	**NONE**
2020	1,684	1,860	3-CS-Y-1-2020	The YMA was closed to sport fishing for chum salmon, effective 12:01 AM, Saturday, August 1, 2020.
2021	0	655	3-CS-Y-1-2021	The YMA was closed to sport fishing for chum salmon, effective 12:01 AM, Thursday, July 1, 2021.
2022	0	21	3-CS-Y-5-2022	The YMA was closed to sport fishing for chum salmon, effective 12:01 AM, Sunday, May 1, 2022.
2023	0	84	3-CS-Y-4-2023	The YMA was closed to sport fishing for chum salmon, effective 12:01 AM, Wednesday, April 5, 2023.

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Year	Sport harvest	Sport catch	EO Number	EO Summary
2024	0	327	3-CS-Y-17-2024	The YMA was closed to sport fishing for chum salmon, effective 12:01 AM, Friday, August 16, 2024.
2025	–	–	3-CS-Y-13-2025	The YMA was closed to sport fishing for chum salmon, effective 12:01 AM, Wednesday, July 9, 2025.

Appendix A3.–Coho salmon harvest information and yearly emergency orders (EO) for the Yukon Management Area (YMA), 2010–2025.

Year	Sport harvest	Sport catch	EO Number	EO Summary
2010	575	1,983	–	NONE
2011	179	558	–	NONE
2012	47	174	–	NONE
2013	127	1,597	–	NONE
2014	1,639	10,479	–	NONE
2015	413	1,100	–	NONE
2016	29	29	–	NONE
2017	55	223	–	NONE
2018	62	318	–	NONE
2019	0	0	–	NONE
2020	1,257	1,332	–	NONE
2021	13	33	3-SS-Y-1-21	The YMA was closed to sport fishing for coho salmon, effective 12:01 AM, Thursday, August 26, 2021.
2022	63	125	3-SS-Y-26-22	The YMA was closed to sport fishing for coho salmon, effective 12:01 AM, Thursday, September 8, 2022.
2023	0	577	3-SS-Y-21-23	The YMA was closed to sport fishing for coho salmon, effective 12:01 AM, Thursday, August 31, 2023.

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Year	Sport harvest	Sport catch	EO Number	EO Summary
2024	0	451	3-SS-Y-19-24	The YMA was closed to sport fishing for coho salmon, effective 12:01 AM, Thursday, August 22, 2024.
2025	–	–	–	NONE

APPENDIX B:
DRAINAGEWIDE ESCAPEMENT 2006–2025, AND COMMERCIAL, SUBSISTENCE, AND SPORT HARVEST OF CHINOOK SALMON IN THE ALASKA PORTION OF THE YUKON RIVER DRAINAGE, 2005–2025, AND ENUMERATION PROJECTS 2021–2025

Appendix B1.–Drainagewide totals for Chinook, chum, and coho salmon in the Yukon River drainage, including the Tanana River, for 2006–2025.

	Total Drainagewide Run				Total Canadian-Origin Run	
Year	Chinook[a]	Summer Chum[a]	Fall Chum[b]	Coho[c]	Chinook[d]	Fall Chum[e]
2006	289,431	4,043,800	1,216,000	309,275	126,125	330,000
2007	235,265	2,162,400	1,162,000	284,304	92,824	347,000
2008	190,962	2,078,900	858,000	184,121	69,577	269,000
2009	231,841	1,732,200	601,000	–	86,638	128,000
2010	159,928	1,695,900	588,000	200,320	62,767	143,000
2011	192,241	2,421,800	1,247,000	225,319	70,497	326,000
2012	137,079	2,490,900	1,088,000	211,696	51,449	238,000
2013	102,381	3,373,700	1,213,000	175,421	39,617	303,000
2014	175,601	2,504,800	953,000	384,203	65,111	223,000
2015	204,665	2,009,400	825,000	255,541	88,341	205,000
2016	189,953	2,612,800	1,391,000	397,643	83,796	298,000
2017	243,120	3,654,200	2,306,000	308,167	99,946	563,000
2018	178,804	2,102,100	1,116,000	239,251	76,646	279,000
2019	220,602	1,705,400	795,000	176,766	85,148	178,000
2020	138,817	766,030	189,000	119,142	52,140	25,000
2021	102,427	159,680	94,000	45,543	33,239	23,000
2022	37,522	485,890	174,000	101,631	13,360	22,000
2023	39,292	904,310	294,000	64,717	15,816	23,000
2024	56,159	807,980	165,000	89,916	25,390	16,000

Source: Data are from JTC (2025) except summer chum salmon from Gleason, C. M., D. M. Jallen, B. M. Borba, F. W. West, S. K. S. Decker, J. N. Clark, and A. J. Padilla. *In prep*. Yukon Management Area Annual Report, 2024. Alaska Department of Fish and Game, Fishery Management Report, Anchorage.

Note: En dashes mean data are not available.

[a] Total run size estimates come from a run reconstruction model that combines historical data from various assessment projects, harvests, tributary escapements, stock proportions, and age composition under a single Bayesian estimation framework.

[b] Spawner data are derived from a Bayesian spawner-recruit model, then harvest is added for the total run. Methods in Fleischman and Borba 2009.

[c] An abundance index is derived from Pilot Station sonar estimates adjusted for timing using the test fisheries downstream lagged and includes all harvests below the sonar. The drainagewide harvest is then subtracted from the index of abundance to estimate escapement.

[d] Run Reconstruction (RR) Canadian mainstem border passage, RR spawning escapement, and RR Canadian origin total run size estimates are derived from an integrated drainagewide run reconstruction model (Conners et al. 2023). All RR border passages, RR spawning escapements, and RR Canadian origin total run size estimates are updated annually based on the most recent model run.

[e] Estimated run sizes are calculated by adding the estimated U.S. harvest of Canadian-origin fall chum salmon estimates to the mainstem Yukon River Eagle sonar passage estimates. The proportion of Canadian mainstem fall chum salmon in the total U.S. harvest is assumed to be equal to the proportion of Canadian-origin fall chum salmon in the drainagewide escapements (i.e., 25%).

Appendix B2.–Commercial, subsistence, and sport harvest of Chinook salmon in the Alaska portion of the Yukon River drainage, 2005–2024.

	Tanana River			Yukon River without Tanana			Total Alaska Yukon River		
Year	Commercial	Subsistence	Sport	Commercial	Subsistence	Sport	Commercial	Subsistence	Sport
2005	453	1,828	483	31,886	51,581	0	32,339	53,409	0
2006	84	1,229	638	46,562	47,364	101	46,646	48,593	101
2007	281	1,717	549	34,202	53,457	411	34,483	55,174	411
2008	0	605	254	4,641	44,581	155	4,641	45,186	155
2009	0	1,285	836	316	32,520	27	316	33,805	27
2010	0	1,143	313	9,897	43,416	161	9,897	44,559	161
2011	0	1,367	372	82	39,613	102	82	40,980	102
2012	0	627	114	0	29,788	231	0	30,415	231
2013	0	367	11	0	12,166	155	0	12,533	155
2014	0	283	0	0	3,003	0	0	3,286	0
2015	0	440	13	0	7,137	0	0	7,577	0
2016	0	816	20	0	20,796	0	0	21,612	0
2017	0	657	18	168	36,755	0	168	37,412	0
2018	0	493	200	0	31,493	0	0	31,986	200
2019	0	624	19	3,110	47,753	19	3,110	48,377	38
2020	0	425	49	0	21,289	0	0	21,714	49
2021	0	7	0	0	1,988	0	0	1,995	0
2022	0	1	0	0	1,826	0	0	1,827	0
2023	0	0	0	0	1,564	0	0	1,564	0
2024	0	3	0	0	1,872	0	0	1,875	0
Average									
2014–2023	0	375	32	328	17,360	2	328	17,735	29
2019–2023	0	211	14	622	14,884	4	622	15,095	17

Source: Commercial and subsistence harvest numbers are from JTC (2025).

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Appendix B3.–Summary of 2021–2025 salmon counts at various enumeration projects in the YMA compared to existing goals. Figure 7 depicts salmon project locations. Total inriver abundance estimates are given in Appendix B1.

Location	Assessment method	Goal type	Goal	2021	2022	2023	2024	2025[a]
			Chinook salmon					
E. Fork Andreafsky River	Weir	SEG	2,100–4,900	1,425	-	194	24[e]	-
Pilot Station	Sonar	none	–	124,845	48,439	58,529	64,198	60,407
Gisasa River	Weir	none	–	-	503	489	-	-
Henshaw Creek	Weir	none	–	130	-	-	-	-
Eagle[d]	Sonar	IMEG (sonar-harvest)	42,500–55,000	31,796	12,025	14,752	24,183	23,806
			Summer chum salmon					
E. Fork Andreafsky River	Weir	BEG	>40,000	2,634	-	2,308	190[e]	-
Pilot Station	Sonar	Yukon Drainagewide BEG[b]	500,000–1,200,00	153,718	463,806	845,988	758,260	347,529
Anvik River	Sonar	BEG	350,000–700,000	18,819	46,436	60,556	134,741	47,255
Gisasa River	Weir	none	–	-	3,300	16,913	-	-
Henshaw Creek	Weir	none	–	3,729	-	-	-	-
			Fall chum salmon					
Pilot Station	Bayesian	Yukon Drainagewide SEG[c]	300,000–600,000 (SEG)	146,197	325,717	370,015	246,664	343,426
Teedriinjik River	Sonar	BEG	74,000–152,000	21,162	67,434	141,120	58,458	64,609[f]
Eagle[d]	Sonar	IMEG (sonar-harvest)	70,000–104,000	23,170	22,075	22,179	16,204	16,637[f]

Note: En dash is indicative of no estimate of abundance due to the project not operating or inclement weather precluding acquiring an abundance estimate.

[a] Data are preliminary.

[b] Drainagewide escapement based on Pilot Station sonar and Andreafsky River weir estimates minus harvest estimates above the sonar site.

[c] Total drainagewide run size is derived by adding the estimated total harvest (U.S. and Canada) to the estimate of drainagewide escapement.

[d] Salmon passage estimates at Eagle sonar do not represent escapement estimates, as some harvest may have occurred between the sonar and the Canadian border.

[e] The Chinook and chum salmon numbers represent a minimum from missed counts due to high water events.

[f] Incomplete counts for Eagle and Teedriinjik Rivers sonars to 1 October 2025, because both projects normally conclude in mid-October.

APPENDIX C:
NUMBER OF VISITORS CONTACTED AT THE ARCTIC INTERAGENCY VISITOR CENTER, ESTIMATED FISHING EFFORT, AND TOTAL CATCH OF ARCTIC GRAYLING FOR THE DALTON HIGHWAY CORRIDOR, 2005–2025

Appendix C1.–Number of visitors contacted at the Arctic Interagency Visitor Center in Coldfoot, estimated fishing effort (angler-days), and total catch of Arctic grayling for the Dalton Highway corridor (Yukon River to Atigun Pass), 2005–2025.

Year	Visitors	Fishing effort	Grayling catch
2005	8,051	**270**	**2,184**
2006	8,378	2,590	9,703
2007	9,439	1,975	5,779
2008	9,657	987	7,503
2009	8,574	1,177	3,253
2010	8,311	1,260	1,917
2011	9,634	731	1,153
2012	8,187	791	3,509
2013	7,787	791	5,230
2014	7,139	985	3,707
2015	7,970	1,136	2,969
2016	7,941	1,038	5,059
2017	7,941	566	1,587
2018	8,459	**804**	**2,213**
2019	8,621	**554**	**774**
2020	2,325	**3,139**	**255**
2021	5,050	736	1,735
2022	6,892	**480**	**1,128**
2023	8,229	424	1,982
2024	7,530	1,733	1,726
2025	8,537	Unavailable[a]	Unavailable[a]
Average			
2014–2023	7,057	995	2,141
2019–2023	6,223	1,067	1,175

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited September 19, 2025). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Note: The Arctic Interagency Visitor Center is a multiagency visitor center operated by the following U.S. Department of Interior agencies: Bureau of Land Management, U.S. Fish and Wildlife Service, and National Park Service.

Note: Data in bold result from fewer than 12 respondents and are subject to high variance. These numbers are presented to show that sport fishing occurred in these waters with or without some level of harvest.

[a] The Alaska Sport Fishing Survey (also known as the Statewide Harvest Survey or SWHS) data for 2025 will become available in 2026.