

State of Alaska
 Department of Fish and Game
 Nomination for Waters
 Important to Anadromous Fish

Year of Revision

ALASKA DEPT. OF
 FISH & GAME

DEC 26 1991

REGION II
 HABITAT DIVISION

Anadromous Water Catalog Volume Interior Region - Region VII

USGS Quad ⁽¹⁰⁹⁾ Livengood (B-2) C-2

Name of Waterway Beaver Creek

Anadromous Water Catalog Number of Waterway _____

334-40-11000-2810-3100

Change to _____ Atlas

_____ Catalog

X Both

Addition X

Deletion _____

Correction _____

Name addition:

USGS name Livengood B-2

Local name Bast's old cabin site SW 1/4 SE 1/4 NW 1/4, sec 9, T7N, R1W, FM

For Office Use

Nomination #	<u>93 003</u>
<u>MLH</u> Regional Supervisor	<u>12-20-91</u> Date
<u>Ed Weiss</u>	<u>1/26/93</u>
<u>Z. Arone</u> Drafted	<u>11/5/92</u> Date

Species	Date(s) Observed	Spawning	Rearing	Migration
<u>King Salmon</u>	<u>7-26-91</u>	<u>X</u>		

Comments: Provide any clarifying information, including number of fish observed, location of fish survey data, etc.

Four adult King salmon were observed from a canoe actively spawning at Bast's old cabin site. Water temperature (11°C), substrate (rubble), embeddedness (0%) and discharge measurements were made. A total of 47 adults were observed from this site to Victoria Creek while canoeing. Four spawning areas were documented. These fish were very red and beginning to whiten around the caudal fin.

Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls. Attach a copy of the fish survey data, if available.

Name of Observer (please print) Brian Lubinski

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Signature of Area Biologist: James A. Bayton, IBRS, ADFG
Fishing Biologist

USDI BUREAU OF LAND MANAGEMENT
STEESE/WHITE MOUNTAINS DISTRICT
1991 FISHERIES FIELDWORK SUMMARIES

BRIAN LUBINSKI- DISTRICT FISHERY BIOLOGIST
SEPTEMBER 15, 1991

BEAVER CREEK

May 24, 1991- Discharge measurements were made with District Hydrologist at 3 sites (Beaver Creek above Nome Creek, Beaver Creek at Big Bend and Beaver Creek at Victoria Creek). Arctic grayling were collected by hook and line at the above 3 sites for determining spawning condition. Water temperatures were 1.7°C above Nome and 7.2°C at Victoria. Of the 11 grayling caught, 6 were kept (4 females and 2 males; 279-356 mm FL). Only one 286 mm FL female had not spawned.

July 18-28, 1991- District Recreation Specialists rafted from the Nome-Moose confluence to Victoria Creek and sighted approximately 80 king salmon. The first sighting occurred at Bast's old cabin site. All were very red and beginning to whiten around the caudal fin.

July 22-31, 1991- Beaver Creek was canoed from the Nome-Moose confluence to Victoria Creek. Fish were sampled by hook and line, experimental gill nets, salmon gill nets, beach seines and minnow traps. Summer feeding (arctic grayling, round whitefish, northern pike), nursery (arctic grayling) and spawning (king salmon) habitats were inventoried. Forty-seven king salmon were observed and 4 spawning areas documented; the farthest upstream kings were sighted was Bast's old cabin site where 4 were observed actively spawning (SW1/4SE1/4NW1/4, sec 9, T7N, R1W, FM). Hook and line samples resulted in the capture of 2 spent females and 1 flowing male king salmon (950, 920 & 800 mm FL, respectively). Water temperature at all 4 spawning areas was 11°C. One hundred-twenty-five arctic grayling were caught hook and line. Fork length, weight, sex and scale samples were taken as part of a baseline database to be used in monitoring impacts from increased sport fishing pressure. These fish averaged 261 mm FL and ranged from 118 to 344. Northern pike (N=19) averaging 522 mm FL and ranging from 410 to 625 dominated the quiet pools > 2 meters in the lower 15 miles of the WSR corridor. Round whitefish and arctic grayling were found to be occupying the same pool habitats throughout the drainage.

August 18 - September 1, 1991- Arctic grayling (N=20, 11 males, 9 females) were surgically implanted with TELONICS radio tags to document fall migration patterns and overwintering habitat selection. Grayling were captured by hook and line from Little Champion and Champion Creeks. Fork lengths averaged 346 mm and ranged from 295 to 384. Weights averaged 466 grams and ranged from 295 to 645. Implant time (time out of to time back in water) averaged 7 minutes and ranged from 4 to 15. Water temperatures at the time of implanting ranged from 4 to 5°C. Downstream migration occurred gradually, with the most notable downstream shift occurring between 10-17 September. Fish movement slowed between 10-31 October, averaging 0.3 miles and ranging from 0 to 1 for 75% of the fish. By 12 November, downstream migration averaged 13.4 miles and ranged from 1 to 39.

Nome Creek

June 3-4, July 10-11, August 21-22, 1991- Physical, chemical and biological samples were collected each month to document the effects of restructuring and revegetating the flood plain of upper Nome Creek. Approximately 1/2 mile immediately above Pavey's mining claim will be restored. Parameters being used in the monitoring program include water quality, invertebrates, physical habitat, fish and hydrology. Fish species found to be using the restoration area include adult and juvenile arctic grayling, adult round whitefish and slimy sculpin.

Black River-Salmon Fork

June 7-14, 1991- The Salmon Fork of the Black River was rafted from 2 miles below the U.S.-Canadian border to Kevinjik Creek, a distance of approximately 58 river miles. Water quality, discharge, aquatic habitat and fisheries information was collected. The system is generally clear flowing with many deep pools (to 4 meters), sloughs, eddies and remnant oxbows attached at the downstream end. Rubble-boulder substrates dominate the upper reaches with cobble becoming more frequent as the river leaves the hills and enters the flats approximately 4 miles below Runt Creek. Sinuosity increases greatly in the flats, where the river frequently cuts new channels, adding much large woody debris to the system. Fish sampled include 165 adult and juvenile arctic grayling (hook and line), 1 juvenile king salmon (electrofishing), 2 juvenile silver salmon (dip net), 1 juvenile burbot (dip net), 4 adult and juvenile northern pike (gill net, electrofishing), 19 adult sheefish (hook and line), 4 lamprey (dip net, electrofishing) and numerous slimy sculpin (dip net, electrofishing). The silver salmon (47 mm TL, 1 gr) were collected 2 miles below the U.S.-Canadian border (SE1/4, sec 26, T20N, R31E, FM). Sheefish averaged 598 mm FL, ranged from 500 to 700 and were found in 3 areas: John Roberts Cabin (sec 18, T19N, R30E, FM), Pink Bluff (sec 27-30, T19N, R29E, FM) and Salmon Fork-Kevinjik Creek confluence (sec 36, T20N, R26E, FM). These areas were all deep (≥ 2 m), lateral pools located along steep rocky bluffs or undercut permafrost banks and contained fairly strong currents. Arctic grayling averaged 296 mm FL and ranged from 145 to 398.

Fortymile River

June 26 - July 1, 1991- The Fortymile River was canoed from the South Fork bridge past the North Fork confluence to the Fortymile bridge and from the Mosquito Fork bridge to the South Fork bridge. Reaches were selected and subsequently measured for determining instream flow requirements for Fortymile River fish species, primarily arctic grayling. A limited amount of time was spent electrofishing and hook and line sampling. Arctic grayling, round whitefish, longnose suckers and slimy sculpin were collected. Data has yet to be summarized.

* August 5 - 11, 1991- The Fortymile River was rafted from the Joseph Creek airstrip on the Middle Fork to the Fortymile bridge. The same information was collected as during the June trip and has also not been summarized.