

TRIP REPORT

**State of Alaska
Department of Fish and Game**

Field Date(s): October 17 and October 30, 2024

Location(s): **Johnson Tract Site, Johnson River, West Cook Inlet**

Objective(s): Johnson River Watershed Spawning Surveys

Participant(s): Josh Brekken, Beth Evers (ADF&G, Habitat)

Weather: Oct. 17: partly cloudy, 20°F, calm winds, water clarity good
Oct. 30: clear/sunny, 25°F, calm winds, water clarity excellent

Access: Charter Flight from Merrill Field

Alaska Department of Fish and Game (ADF&G) Habitat Biologists Beth Evers and Josh Brekken conducted spawning surveys in the Johnson River valley on October 17th and 30th, 2024. We used a chartered helicopter from Merrill Field (Anchorage) to access the valley for both days.

On October 17, we departed Merrell Field around 8 am and were on-site by 930 am. The weather was partly cloudy, ambient air temperature was about 20°F, winds were calm, and water clarity was good. We were accompanied by two High Gold employees. After fueling the helicopter at the High Gold camp, dropping the two High Gold staff, and coordinating some logistics, we began the survey. Moving in an upstream direction, we flew the Johnson River from the lower confluence with the Lateral Glacier drainage to the Johnson Glacier. We moved slowly at 100-150 feet above the river, pausing as needed. We also flew Kona Creek from the confluence with the Johnson River to the first waterfall. We landed a couple of times to get a closer look at stream substrate, collect some drone footage (with polarized lens), and collect water quality measurements. In total, ten Dolly Varden and 199 adult coho salmon were observed in the Johnson River. No fish were observed in Kona Creek, but viewing was not as productive due to overhanging vegetation along much of the channel. Coho salmon were observed spawning in the Johnson River. Water quality measurements are shown in Table 1. Fish observations are depicted in Table 2 and Figure 1. We departed the site around 5 pm and returned to Anchorage around 630 pm.

Table 1: Water Quality measurements from October 17, 2024.

Site	Temp. (°F)	Cond. (µS/cm)	pH	DO (%)	Turbidity (NTU)
Kona Creek	3.09	39	6.31	88.5	0.25
Johnson River	2.19	66	7.09	77.1	1.71

Table 2: Johnson River fish observations from October 17, 2024.

Waypoint	Latitude	Longitude	Fish/Notes
200	60.11077	-152.96877	Dolly Varden (4)
204	60.09784	-152.91315	Dolly Varden (2) and coho salmon (3)
205	60.09808	-152.91507	Dolly Varden (4) and coho salmon (6)
208	60.07365	-152.80228	Coho salmon (20)
210	60.07442	-152.80989	Coho salmon (80) holding in pool
211	60.07407	-152.80939	Coho salmon (50) spawning at bottom of long run/head of riffle
212	60.07555	-152.81322	Coho salmon (40)

On October 30, we departed Merrill Field around 1030 am and arrived on site around noon. The weather was clear, sunny, with calm winds and air temperatures around 25 °F. Water levels were lower than October 17 and water visibility was excellent. Pan and frazzle ice were intermittently present floating in the Johnson River.

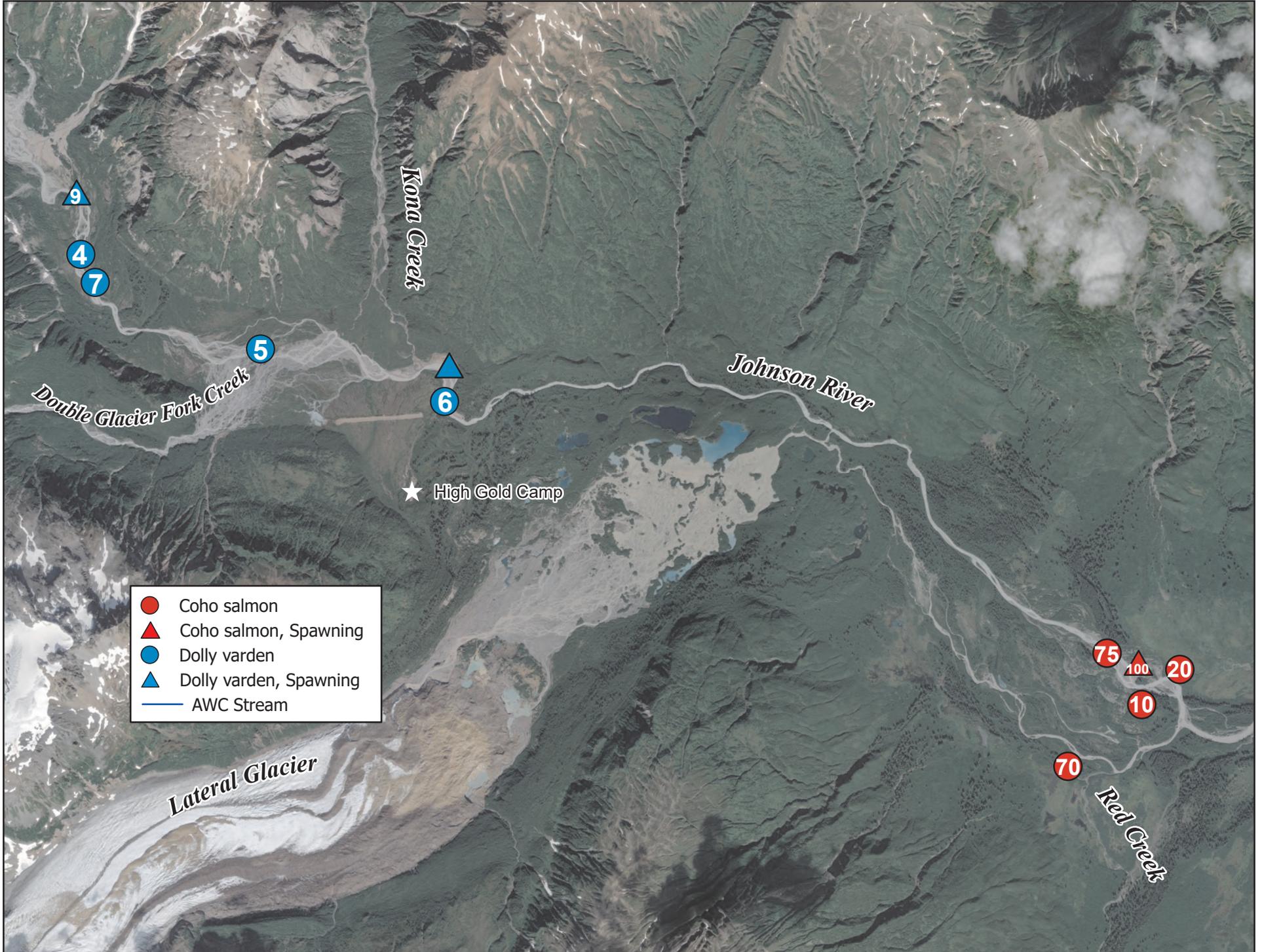
After fueling the helicopter at the High Gold camp, we began the survey. Moving in an upstream direction, we flew the Johnson River from the lower confluence with the Lateral Glacier drainage to the Johnson Glacier. We moved slowly at 100-150 feet above the river, pausing as needed. We also flew Kona Creek from the confluence with the Johnson River to the first waterfall and the Double Glacier drainage from the Johnson River to Double Glacier. We landed a couple of times to get a closer look at stream substrate and collect some drone footage (with polarized lens). No water quality measurements were taken on this trip. In total, 31 Dolly Varden and 290 adult coho salmon were observed in the Johnson River. No fish were observed in Kona Creek (limited visibility due to overhanging vegetation) or the Double Glacier drainage (limited visibility due to shadows). Double Glacier Creek had flowing water for most of its course but appeared to go subsurface into the gravels on the outwash plain before reaching the Johnson River (somewhat obscured by snow/ice cover). Only the lower confluence of the Lateral Glacier drainage was connected to the Johnson River during visit as the upper confluence was dry.

Coho salmon were observed spawning, and Dolly Varden spawning redds were observed in the Johnson River. Bears were targeting the coho salmon spawning area and feeding on some of the adult coho salmon, based on bear observations, a network of tracks in the snow, and blood on the adjacent bank. The area also appears to be a moose rutting area with multiple large bulls and a few cows in the area. Fish observations are depicted in Table 3 and Figure 2. We departed the site shortly after 3 pm and returned to Anchorage around 530 pm.

Table 3: Johnson River fish observations from October 30, 2024.

Waypoint	Latitude	Longitude	Fish/Notes
213	60.08255	-152.83195	Coho salmon (25) spawning
214	60.0665	-152.81873	Coho salmon (70)
215	60.07357	-152.80263	Coho salmon (10)
216	60.07237	-152.80728	Coho salmon (10)
218	60.07363	-152.80846	Coho salmon (100) spawning
219	60.07505	-152.81242	Coho salmon (75)
220	60.09505	-152.91344	Dolly Varden (6)
222	60.09927	-152.94156	Dolly Varden (5)
223	60.10509	-152.96779	Dolly Varden (7)
224	60.11152	-152.96944	Dolly Varden (9) and spawning
225	60.09792	-152.91263	Dolly Varden spawning
228	60.10568	-152.96956	Dolly Varden (4)







Photograph 1 – Johnson River at Waypoint 204 (coho salmon and Dolly Varden holding in long run). October 17, 2024.



Photograph 2 – Brown bear feeding on spawning coho salmon and rutting moose, October 30, 2024. Waypoint 218.



Photograph 3 – Coho salmon spawning reach in mid-Johnson River just upstream from lower Lateral Glacier drainage confluence. October 30, 2024.



Photograph 4 – Double Glacier drainage looking downstream, October 30, 2024.



Photograph 5 – Johnson River and Double Glacier drainage confluence looking upstream. October 30, 2024.



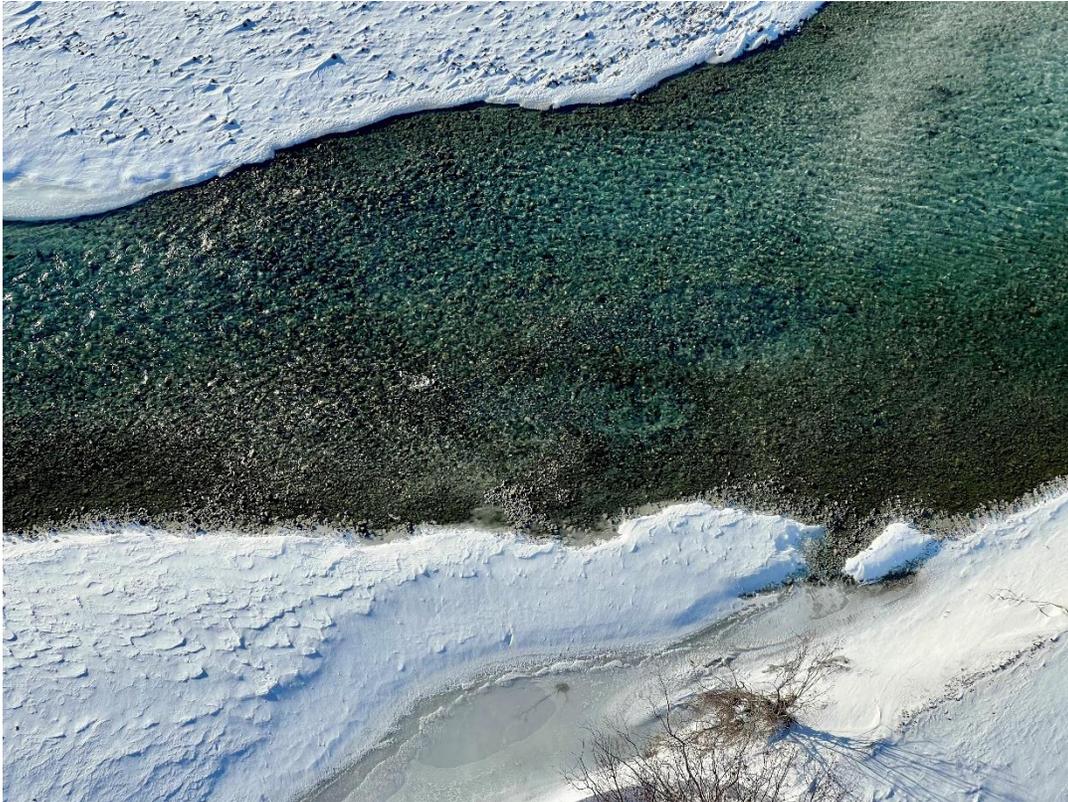
Photograph 6 – Double Glacier drainage near confluence with Johnson River. October 30, 2024.



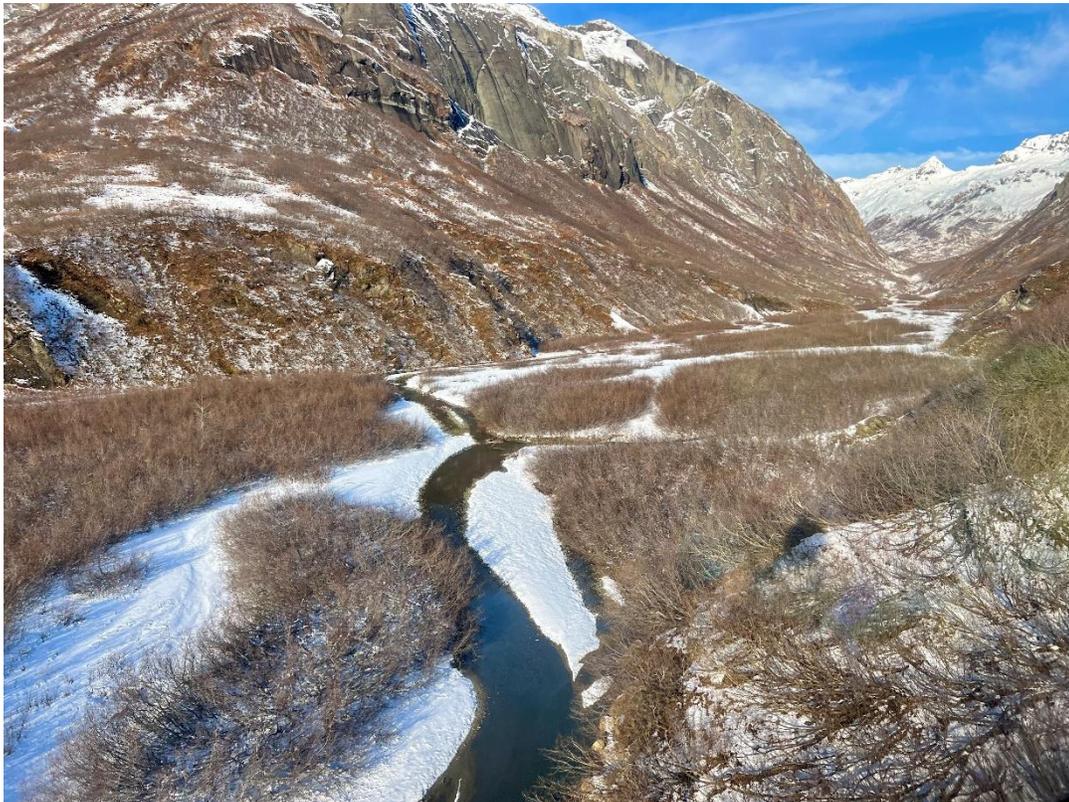
Photograph 7 – Tributary of Double Glacier drainage near confluence (60.092465 N, 152.948622 W). October 30, 2024.



Photograph 8 – Dolly Varden spawning redds at top of riffle near mouth of Kona Creek. Waypoint 225. October 30, 2024.



Photograph 9 – Dolly Varden spawning redds at head of riffle in upper Johnson River, near mouth of Kona Creek. Waypoint 225. October 30, 2024.



Photograph 10 – Kona Creek valley looking upstream. October 30, 2024.



Photograph 11 – Johnson River looking upstream with deep pool, possibly overwintering habitat. October 30, 2024.



Photograph 12 –Dolly Varden spawning redd, upper Johnson River. Waypoint 224. October 30, 2024.



Photograph 13 –Upper Johnson River and Johnson Glacier. October 17, 2024.



Photograph 14 –Upper Johnson River and Johnson Glacier. October 30, 2024.



Photograph 15 –Upper Johnson River substrate in long run. Waypoint 204. October 17, 2024.



Photograph 16 –Dolly Varden holding in long run (middle right). Waypoint 204. October 17, 2024.



Photograph 17 – Upper Lateral Glacier drainage confluence with Johnson River (flow connected). October 17, 2024.



Photograph 18 – Upper Lateral Glacier drainage confluence with Johnson River, (flow disconnected).
October 30, 2024.