

TRIP REPORT

State of Alaska
Department of Fish and Game

Field Dates: April 20-23, 2022
Location: **Arctic Bornite Prospect**
Objective: Identify possible overwintering locations of resident Dolly Varden
Participants: Audra Brase (Habitat) and Kelsey Stockert (KUNA Engineering)
Weather: Sun, high temperatures near 50°F
Access: Air Charter and Helicopter

On April 20, I left Fairbanks via the Wright Air Charter and arrived at Bornite Camp at 3pm. After the camp briefing and helicopter safety check, Kelsey Stockert (KUNA engineering) and I flew a survey of the Subarctic and Red Rock creek valleys to assess how much open water was available for minnow trapping. We identified 3 locations on Subarctic, 2 on Red Rock and 2 on Center of the Universe creeks (Figures 1-4). At each site, the helicopter pilot packed down landing zones nearby in the snow so that they would be firmer the next day.

On April 21, we set minnow traps baited with cured salmon eggs at each of the locations. After a 24 hour soak, we pulled the traps. Three Dolly Varden were captured at the Lower Center of the Universe location and two Dolly Varden at the Middle Subarctic location (Table 1, Figure 5). We also noted stoneflies emerging on the snow at the Lower Subarctic site, and caddisfly larvae with cases made of small stones at the Middle Subarctic site.

No fish were caught at any of the other locations, even though there were generally good conditions for capturing fish: water deep enough to for the traps to work effectively, air temps warm enough to not create icing on the traps, etc.. This compared to conditions in March 2021 when air temperatures were -30°F and only one Dolly Varden was captured at the Upper Subarctic site.

After checking all the minnow traps I assisted Kelsey with the remainder of the Ambler Metals surface water sampling at their standard locations. Note - Ambler Metals does not have any surface water sampling locations in Red Rock or Center of the Universe creeks.

I departed Bornite Camp on April 23 and arrived back in Fairbanks at 5:00pm.

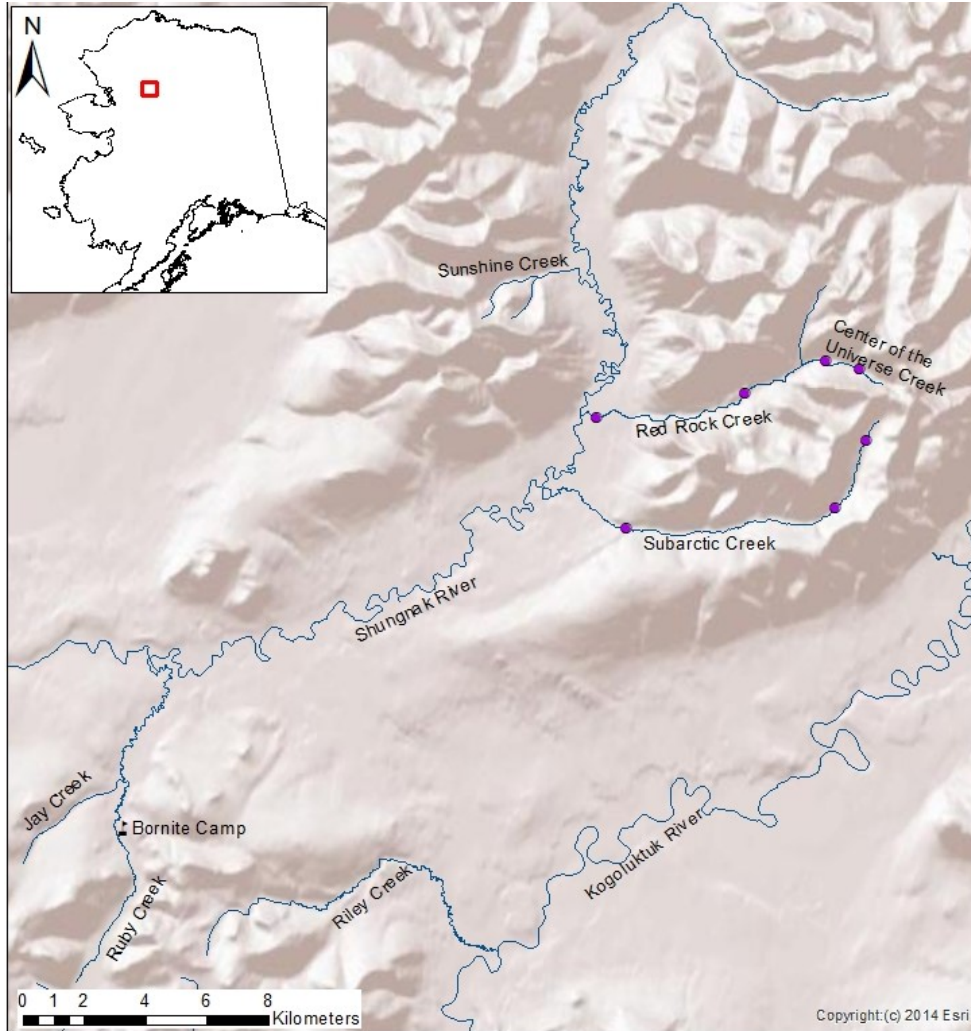


Figure 1. Map showing April 2022 sampling locations (purple circles).



Figure 2. (L to R) Lower Subarctic, Middle Subarctic and Upper Subarctic sampling locations, April 2022.



Figure 3. (L to R) Lower Red Rock and Upper Red Rock sampling locations, April 2022.



Figure 4. (L to R) Lower Center of the Universe and Upper Center of the Universe sampling locations, April 2022.

Table 1. Minnow trap locations and fish caught, April 2022.

Creek Location ^a	# Traps	# Fish	Lengths	Notes
Lower Subarctic (SCGS)	5	0	N/A	Multiple deep pools, stoneflies emerging on snow
Middle Subarctic (SCMI)	5	2 DV	108, 130 mm	Multiple deep pools, caddisfly larvae in pool
Upper Subarctic (SCUP)	3	0	N/A	Shallow, 2/3 traps barely submerged
Lower Red Rock	5	0	N/A	Multiple deep pools
Upper Red Rock	5	0	N/A	Multiple deep pools
Lower Center of the Universe	4	3 DV	64, 70, 116 mm	Long open stretch, several glide & pool sections
Upper Center of the Universe	1	0	N/A	Shallow and iced

^a Ambler Metals water station names in parentheses.



Figure 5. Examples of the Dolly Varden captured in Subarctic and Red Rock creeks, April 22, 2022.