

DENALI NATIONAL PARK AND PRESERVE

CENTRAL ALASKA NETWORK

Vegetation Monitoring Program

Summary Trip Report: Upper Moose Creek Mini-grid

20 June to 27 June, 2007



Photo 1. About 120 meters SW of point 08

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Contributors: Carl Roland, Peter Nelson, James Walton, and Brian Dykstra

September, 2007

PURPOSE:

The purpose of this work was to install permanent plot stakes and to collect data for the CAKN Long Term Ecological Monitoring Program. There were two half days of travel and 6.5 days of field work.

PERSONNEL:

James Walton—crew leader, non-vascular plant data, soil data, transect cover
Brian Dykstra—vascular plant data, quadrat variable estimates, photos, transect cover
Larissa Lasselle—grid point data, meta-plot data, plot variable estimates, transect cover, trip report record
Peter Nelson—tree and sapling measurements and tree core data

ACCESS TO MINI-GRID AND CAMPING POSSIBILITIES:

We drove from park headquarters to Friday Creek where we stayed in canvas side tents at Friday Creek. From Friday Creek we drove to the Upper Moose Creek mini-grid. To access the mini-grid, we needed to cross Moose Creek, which is wide and shallow. Rubber boots or chacos are good for this.

HIKING:

The mini-grid is often steep and brushy. The initial stream crossing is easy because it is wide and shallow, but it is recommended that you bring rubber boots or chacos for the crossing to keep your feet dry for the rest of the day

WEATHER AND ENVIRONMENTAL CONDITIONS:

The weather was mostly cloudy to rainy with many mosquitoes.

SAFETY CONSIDERATIONS:

The crew that finished this mini-grid later in the season saw a grizzly along Moose Creek—so as always, bears are a safety concern.

PHENOLOGY OBSERVATIONS:

Ledum decumbens, *Spiraea stevensii*, *Vaccinium vitis-idaea* and *Cornus suecica* were in bloom. Some *Ledum decumbens*, *Mertensia paniculata*, *Potentilla fruticosa*, *Ledum groenlandicum* and *Rosa acicularis* were blooming but also well into setting seed. The *Vaccinium uliginosum* had green berries

GENERAL NOTES ON PLOT-WORK AND PLOT OBSERVATIONS:

Teams red and green were assigned to work on the Moose Creek grid from June 20 to 28. We stayed in canvas side tents at Friday Creek.

James, Brian, Peter Nelson from team green, and I left Park Headquarters in the morning and arrived to Moose Creek and point 01 a little after noon. Rob and Carl rode out to Moose Creek later in the morning.

Nikki Grant-Hoffman from team green was away this week and did not go into the field. The plan for the week was to have Rob Lieberman accompany Carl and Peter in the field for the first few days and then leave them to work on plots together for the rest of the week. As for team red, we were all there and we worked together as assigned.

Rob left on day 3. On day 4 Carl left for Fairbanks to work out various field logistics for botany teams.

Later in the season the crew that finished early at Gorge Creek (Nelson, Nicklen, and Grant-Hoffman, plus Walton) came to complete this mini-grid.

Table 1. Collection series for the Upper Moose Creek mini-grid.

Collector	Identifier	Series
Dykstra	Vascular plants	100-0001 to 101-0176 (first card) and 100-0001 to 100-0074 (second card)
Dykstra	Digital Photos	Non-sequential
Walton	Nonvascular collections	UP_MOOSE12-2007171-Aa, Ba, Ca, Da, UP_MOOSE13-2007171-Aa, Ba, Da, UP_MOOSE16-2007171-Ba, Ca, Da, UP_MOOSE17-2007171-Aa, Ba, Ca, Da, UP_MOOSE18-2007171-Ba, Ca, UP_MOOSE19-2007171-Ba, Ca, Da, Db, UP_MOOSE20-2007171-Ba, Da, UP_MOOSE21-2007171-Aa,
Nelson and Lasselle	Tree Cores	30 samples
Walton	Soils	

ACTIVITIES:

Wednesday, June 20

James, Brian, Peter Nelson from team green, and I left Park Headquarters in the morning and arrived to Moose Creek and point 01 a little after noon. Rob and Carl rode out to Moose Creek later in the morning.



Photo 2. Southern perimeter of point 01 looking to plot center.

UMC_01: Plot is about 900 meters south of Moose Creek Road. There were some catkins on *Salix* sp. and *Ledum decumbens* was in bloom. There was evidence of moose browse.

Weather: Some rain, but mostly partly cloudy.

Thursday, June 21

From Friday Creek Camp we drove to Camp Denali and parked our rig in their parking lot. Then we used their trail (with GPS on and in hand). When the trail started taking us further from our plot (according to the GPS) we left the trail and hiked north, uphill, through dense shrubs for about 700 meters.

UMC_20 : The plot is on a steep, east facing slope that drains down to a major valley. *Ledum decumbens* was in bloom. Moose Scat found in the vicinity of plot.

UMC_15: From point 20 we headed back uphill to the Camp Denali trail then followed GPS to where the distance on the GPS stopped dropping and headed on to plot. Evidence of moose browse. The bugs were teeming.

Ledum decumbens was in bloom. On the southwestern side of plot there were catkins on the *Salix pulchra*.

UMC_10: We did not leave the plot until 8:15 PM. Plot was on a south facing slope that dropped to a major drainage. One outstanding feature of the plot was a north to south running ditch covered in moss. Evidence of moose browse and scat.

Weather: Cloudy

Friday, June 22

UMC_24: We started the day by hiking up the Camp Denali trail to the ridge-top and then dropped down to point number 24. The plot is in a hilly drainage. Evidence of moose browse in vicinity of plot.



Photo 3. Looking at UMC mini-grid 18 m south of point 24

UMC_25: From point 24 we traversed (and bushwhacked) to point 25. There was evidence of moose browse and moose scat found.

Weather: The weather was drizzly and rainy all day.

Saturday, June 23

UMC_11: A Park Service truck broke down on Moose Creek Rd so we walked down the road about 600 meters and then crossed Moose Creek then heading to our plot near a ridge we bushwhacked uphill for about 600 meters. The plot faces southwest and slopes down to creek. The shrubs were taller than me in some parts. The hike took about 1 hour and 30 minutes.

Dall sheep scat found in the vicinity of plot. *Spirea stevensii* and *Ledum decumbens* found off plot and were in bloom.

UMC_06: From point 11 we headed south following the ridge toward point 06 for as long as possible and then bushwhacked down through *Betula nana* and *Betula occidentalis* to plot. The Moose Creek Rd is visible from plot.

Plot is located 100-200 meters northeast of Moose Creek. The creek terrace is about 100 meters from plot and *Alnus viridis* and *Populus balsamifera* are the dominant vegetation along the creek.

Caribou antlers were found in the vicinity of plot. *Vaccinium vitis-idaea*, *Vaccinium uliginosum* and *Spirea stevensii* in bloom. Some *Ledum decumbens*, *Mertensia paniculata*, *Ledum groenlandicum* and *Rosa acicularis* in bloom but majority were going to seed.

Weather:

Sunday, June 24

We drove down Moose Creek Rd. until we were as close to point 17 as possible (used the Garmin GPS to track distance).

UMC_17: At the road we crossed Moose Creek and then bushwhacked and hiked uphill for about 1.5 km. The hike took about 1 hour. Evidence of moose browse. *Spirea stevensii*, *Vaccinium vitis-idaea* and *Cornus suecica* in bloom.



Photo 4. Looking east at point 12 from about 10m west of western perimeter of plot.

UMC_12: Plot is on the middle 1/3 of a slope dropping down to Moose Creek. Plot work took about two and a half hours to complete with four people. There were trees to core and many trees and saplings to measure.

Evidence of moose browse and scat. *Ledum groenlandicum* and *Spirea stevensii* were in bloom.

UMC_07: It was challenging to move around plot but with four people working we finished in an hour and a half. The slope was very steep about 29 degrees. Ground squirrel was vocalizing in the vicinity of plot. Evidence of snowshoe hare browse.

Weather: The weather was good and the bugs were very bad.

Monday, June 25

Parked at same spot as yesterday and crossed Moose Creek at the same spot as well.

UMC_13: Heading north climbed up a steep slope and then heading north and west we side-sloped the ridge all the way to plot.

The closed, tall scrub layer made the work on plot challenging so we took 3 hours to complete with 4 people working.

There was evidence of moose browse and scat. *Ledum groenlandicum*, *Rubus arcticus* and *Boykinia richardsonii* were in bloom.



Photo 5. Img_0026

UMC_08: From point 13 we headed south and downhill 500 meters to point 08. The work took about 2 hours to complete with 4 people working. Evidence of moose browse.

UMC_03: This plot was about 10 meters north of Moose Creek Rd. Evidence of moose browse in vicinity of plot. *Mertensia paniculata*, *Cornus suecica*, *Ledum groenlandicum* and *Rosa acicularis* were all in bloom. *Rosa acicularis* also going to seed.

Weather: wet

Tuesday, June 26

We drove down Moose Creek Rd and used the Garmin GPS to measure how far we were from point 04 which we planned go to last. When we were as close to point 04 as possible from the road we parked the vehicle on the road.

UMC_09: We could see that the ridge we needed to walk up to get to plot was further up the road than where we parked the vehicle. So, next we walked up the road and crossed the creek. We then headed up a drainage and hiked up to our plot. The plot is south facing and slopes down to Moose Creek. Evidence of moose browse.



Photo 5. Northern perimeter of point 04 looking to plot center.

UMC_04: This plot's southeastern edge is in Moose Creek. The middle of the plot is on an active flood plain and the southwestern edge is on a terrace.

Evidence of beaver browse and live animal in vicinity of plot. Bear scat found in vicinity of plot. Evidence of moose browse in plot. Wolf tracks in plot.

Potentilla fruticosa and *Epilobium latifolium* were in bloom.

UMC_05: From point 04 we crossed the creek and headed west down the river bar until we reached the closest distance (by using the Garmin GPS) to point 05. Then we crossed the creek back over to the north side and hiked north and uphill for about 250 meters.

Evidence of moose browse and snowshoe hare browse.

Ledum groenlandicum and *Vaccinium vitis-idaea* were in bloom. *Saussurea angustifolia* had buds. Some of the *Potentilla fruticosa* were in bloom but a lot had gone to seed. The *Vaccinium uliginosum* had green berries.

Weather: Cloudy

Wednesday, June 27

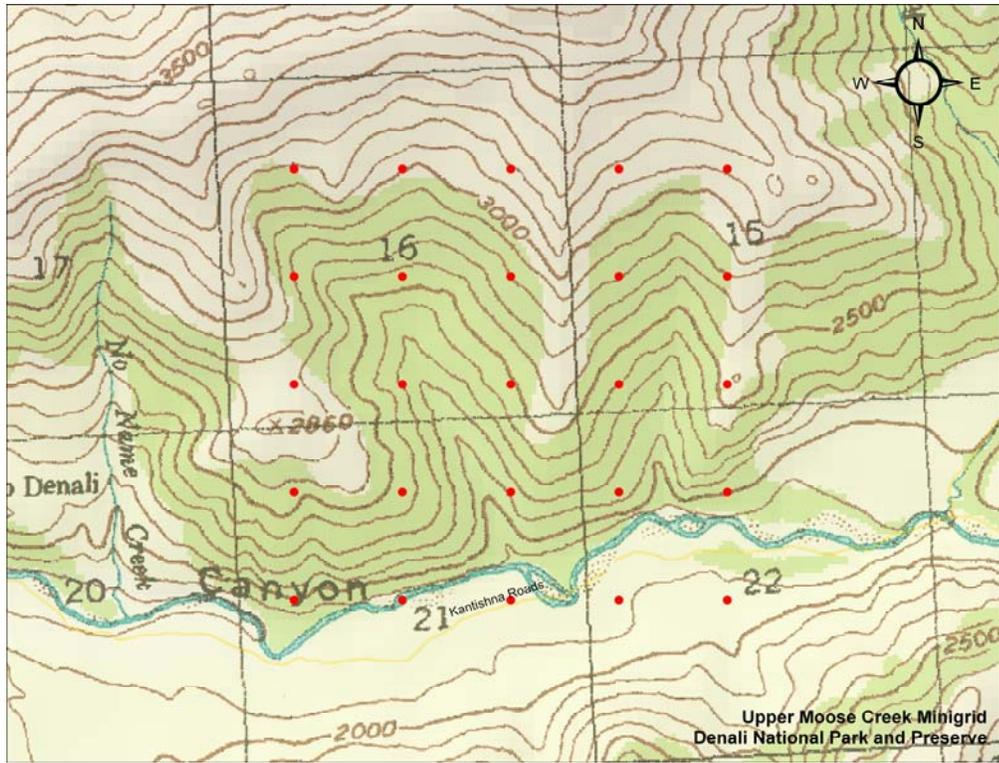
The four of us drove back to Head Quarters this day. We left Friday Creek camp by 9 am. On the drive we saw a sow and yearling walking and playing in the road. Further up the road we encountered a female wolf. She was content walking in the road and we had to slowly follow behind her for about 20 minutes until she jumped off the road and into the bush. She appeared to be searching for roadkill and stopped to munch on some rabbit roadkill at one point. We arrived at headquarters at 1:15 pm.



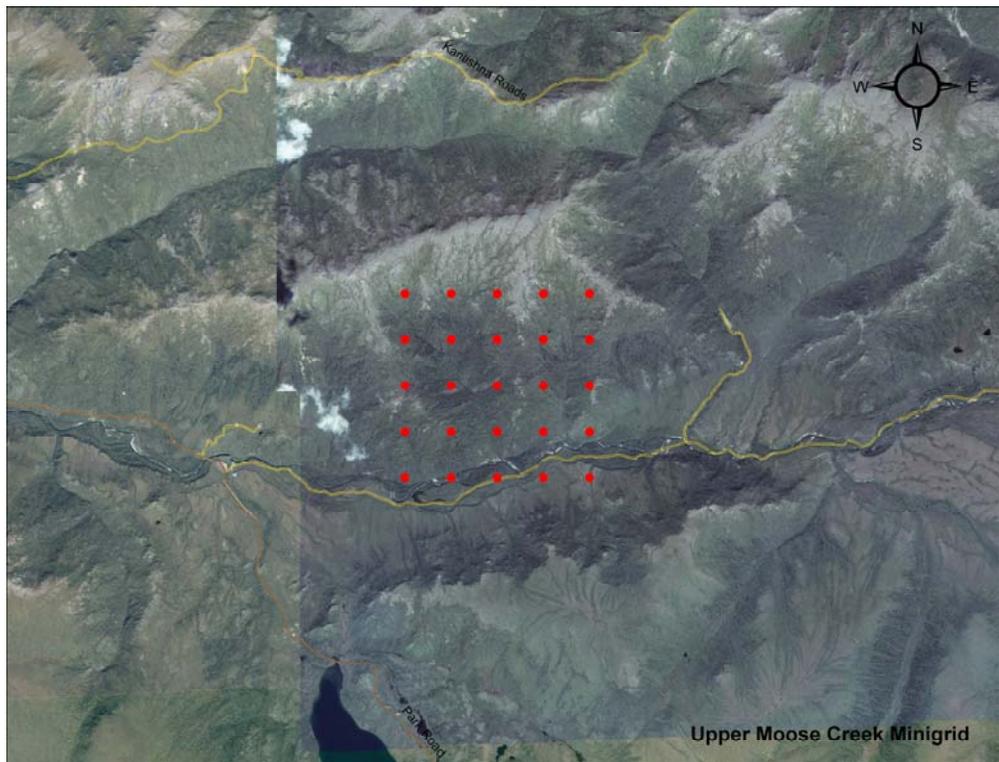
Photo 6. *Viola* sp. At point 04.

CONCLUSION AND FUTURE CONSIDERATIONS:

Peter, Carl and Rob completed work at points 2, 14, 19 and 22. Because of time restraints we did not install permanent markers and collect data for points 16, 18, 21 and 23. These point were visited and completed later in the summer.



Map 1. Upper Moose Creek mini-grid



Ortho Image 1. Upper Moose Creek mini-grid.