

**DENALI NATIONAL PARK AND PRESERVE**

**CENTRAL ALASKA NETWORK**

**Vegetation Monitoring Program**

**Summary Trip Report: Mt. Healy Ridge Mini-grid**

**17 July – 22 July, 2006**



Figure 1. Looking southwest down to point 23 which we did not sample due to loose rock, steep slopes, and lack of vegetation.

**Lead Author: Sarah Stehn**  
**Contributors: Carl Roland, Peter Nelson**

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## **PURPOSE:**

The purpose of this trip was to install permanent point markers and collect first-year vegetation and soils data. We attempted to reach 25 points, able to arrive only at 18. 14 of these were installed and sampled according to standard protocol, and four were installed and sampled according to a modified protocol which consisted mainly of compiling a vascular plant species list. The remaining seven were determined to be too loose, too steep, too treacherous to get to, or mostly void of vegetative cover.

## **PERSONNEL:**

Carl Roland--vascular collections and crew lead  
Peter Nelson--lichen collections and plot photographs  
Sarah Stehn--bryophyte collections and soils data

## **ACCESS TO MINI-GRID AND CAMPING POSSIBILITIES:**

The Mt. Healy Ridge mini-grid is accessed by foot from around mile 9 of the Park road. To carry all the gear we received assistance from 2 backcountry rangers and Wendy and Nat. We could have gotten by with three helpers but four was a nice luxury. They carried most of the field sampling gear, a tent or two, and our bear barrels. We parked at the third big gravel wash up on the plateau between headquarters and the Savage campground (approximate longitude -149.22, latitude 63.71). It has a large cement culvert that was new in 2005. We hiked up the wash 3.5 km to the mouth of the mini-canyon it comes out of to reach the bottom of the grid. It was a 2 hour hike up the wash, 1 hour 40 minutes down. Since we did not have a vehicle, on our way back we caught a camper bus from the road to headquarters. We also had 2 people re-supply us on day 5 with another bear barrel each and they took out soil samples, non-vascular samples, trash, extra clothing, tree equipment (since we found no trees), as well as the solar panel charging system since we knew we would be done very soon. We carried the remaining gear out ourselves.



Figure 2. The view from Point 2 looking south shows the drainage we walked up to reach camp and the park road cutting through the forest.

Campsites at the Mt. Healy Ridge mini-grid are limited due to most of the grid being on steep slopes with loose rock and the backcountry camping regulation of not being visible from the park road. To avoid being visible (and being on rocky slopes) we camped just below brush line, in patches of meadow surrounded by brush. We were just barely able to find 3 tent sites. The campsite is located between Points 3 and 8 just where the creek narrows and makes a slight bend to the east (longitude -149.195343, latitude 63.740825). There is a small narrows section of the creek where a few large boulders create a pour over. There some meadows come down to the creek and are bordered to the south by willow shrubs blocking potential view of our tents from the road.



Figure 3. The view from Point 2 looking west shows the drainage reaching the mouth of the canyon where our camp was. The ridge on the other side of the drainage is the one used to access Points 9, 14, and 19, and the main Mt. Healy ridge.

Water availability could be a problem in dry years. This summer was fairly moist and so the creek coming from the drainage the Mt. Healy mini-grid encompasses (right by the campsite described above) was flowing heavily with plenty of water for our use. Note that we saw no water in the drainage where it crosses the park road but as we walked up drainage, at about halfway towards our camp the water began flowing on the surface and near our camp there were even deep pools you could sit in (if you wanted to). There is no other water in the grid beside what flows out of this creek and a small tarn nearest to Point 20.

## HIKING:

Hiking conditions at the Mt. Healy Ridge mini-grid were steep, rocky, and loose. As is apparent from looking at the maps and imagery, there are few flat spots and few areas of lush vegetation. Much of the daily hiking involves side-hilling on varyingly loose talus slopes or hiking steeply up or down rocky drainages. Be prepared for lots of uneven and unbalanced footing and steep climbs and descents almost every day. We were graced with dry weather but if there was heavy rain the slopes would be even more treacherous. If it were wet the rocky slopes would be slippery and many more slides would occur since many of the slopes are filled with fines that would slump if saturated. Although parts of the mountain look like scree slopes, it is actually a mixture of large rocks and gravels cemented with fines. Each step is different and we found no more than two steps of the 'good' scree which you can slide safely on.

The elevation gain is great from camp (about 4000ft) to the main ridge (>6000ft). Mt. Healy ridge itself is nice walking with fantastic views and mostly stable footing. Of the two ridges running north-south in the mini-grid coming off the main ridge, the one on the east is an easier climb. Sheep use it and so there is trail and fewer ups and downs than the left ridge which is also steeper. Both offer decent access to the main Mt. Healy ridge and the top row of points.



Figure 4. Point 25 is located on the main Mt. Healy Ridge.

## WEATHER AND ENVIRONMENTAL CONDITIONS:

We were fortunate enough to be at this mini-grid through six days of mostly sunny to overcast weather with no rain. There were many cold windy days and a few days that allowed the wearing of a t-shirt. Winds were strong on the ridgelines. We observed bands of clouds approach from the south and get caught up on the Alaska range, and we saw those clouds go through Broad Pass and into the park headquarters area while we remained high and dry in the sunshine. On July 31<sup>st</sup> (9 days after we left) I observed freshly fallen snow on the ridge.

Animal Observations: Bugs on the Mt. Healy Ridge mini-grid were minimal. There were some mosquitoes at the lower row of points but not so many that required a bug jacket. The winds and cold likely influenced this but also the high amount of rock cover in the area limits habitat. We observed American pipits and an adolescent golden eagle that must have had a nest nearby as he flew over and called daily. We observed a sheep mother and young on the main Mt. Healy ridge and saw numerous track and scat all over the ridges. We saw possible wolverine, marmot, weasel, and fox track in the drainage.

We saw a grizzly in the area for three days. We first saw it to the west of Point 6. It continued contouring west just along the southern boundary of the grid, wandering in and out of the shrub line towards our camp. We didn't see it again until the next morning while climbing to Point 9. It must have bedded for the night just south of our camp and was continuing west along the south boundary of the grid. We also saw 3 moose browsing in the shrubs at close proximity to the wandering grizzly.

We saw a bull caribou on the hike out at close range who was acting strangely. He stared at us for a long time and then ran out of the gravel bed and into the tundra but circled back and followed us down the drainage which was not apparent until we were on the side of the road and three buses slammed to a halt to view the caribou which promptly took a pee and did some strange twitching before running back off into the tundra.



Figure 5. Point 4 is representative of the southern row of points and the type of terrain in which we saw the grizzly bear.

## PHENOLOGY OBSERVATIONS:

Alpine wildflowers were flowering in abundance.

## GENERAL NOTES ON PLOT-WORK AND PLOT OBSERVATIONS:

Most of the points are high and exposed. Being mostly rock they go fairly quickly. There are a few plots in seeps and muddy areas or protected tundra ridges that allow for fairly high diversity. Vascular plant diversity was variable depending on the stability of the slope and aspect. Non-vascular diversity was limited due to the unstable slopes but there were areas of high local abundance and diversity of lichen (mostly at high elevations) and bryophytes (mostly at low elevations).



Figure 6. Looking south at Point 20 shows the typical low density vegetative cover.

**Table 1. Collection series for the Mt Healy mini-grid**

Collector	Identifier	Series
C. Roland	Vascular	CR-06-092 to CR-06-142
P. Nelson	Lichen	PRN-06-160 to PRN-06-229
S. Stehn	Bryophyte	SES-06-197 to SES-06-337
P. Nelson	Photographs	IMG_3433-IMG_3737
S. Stehn	Soil	20 samples collected
C. Roland & P. Nelson	Tree Cores	none collected, no trees

## ACTIVITIES:

**Table 3. Summary of daily activities at the Mt Healy mini-grid.**

Date	Activity/Points Completed	Comments
Monday, July 17 <sup>th</sup>	Transport personnel and gear to Mt. Healy via foot	8am-12pm, 4 people assisted us in carrying gear
	Point 5	1:30pm-6pm, sunny, windy, cold
Tuesday, July 18 <sup>th</sup>	Point 2	8am-11:45am
	Point 1	1pm-5pm
	Point 6	5:45pm-7:30pm, steep talus slope
Wednesday, July 19 <sup>th</sup>	Point 9	8am-11am, loose rock
	Point 14	12:30pm-2:30pm, ridgetop
	Point 19 (modified)	3:15pm-3:35pm
	Point 24 (not measured)	Very loose rock with little growth
	Point 25	5pm-7pm, ridgetop, rocky
	Point 20	7:45pm-9:15pm
Thursday, July 20 <sup>th</sup>	Point 3	9am-1pm, shrubby
	Point 8	2pm-4:20pm
	Point 13 (modified)	5:15pm-5:35pm, too loose and steep
	Point 18	6:30pm-7:50pm
Friday, July 21 <sup>st</sup>	Point 7 (modified)	9am-9:30am, too loose and steep
	Reconnaissance of Points 11, 16, 17, 21, 22, and 23	9:30am-1:30am, all points in loose rock with little or no vegetation
	Point 12 (modified)	2pm-2:50pm, too loose and steep
Saturday, July 22 <sup>nd</sup>	Point 10	9am-11am
	Point 15	12:30pm-3:15pm
	Transport personnel and gear out to park road via foot	4:30pm-6:30pm, caught a green bus to headquarters

## CONCLUSION AND FUTURE CONSIDERATIONS:

This is a quick grid partly because of its close location to the front-country. Even in the initial visit it took only six days. In future visits, now that it has been determined seven points are inaccessible, and four required only modified sampling, this grid will go even quicker. I estimate the revisit of this grid to take at most 6 days: travel is only half a day each way, and there are only 14 points to sample completely, and 4 to sample modified.

There were two auxiliary photo points that could be revisited if time allows but they require a little extra hiking: MtHealy26a (longitude -149.208087, latitude 63.756827) and MtHealy27a (longitude -149.179290, latitude 63.755452). They show the rocky slopes and may document future stabilization or loosening of these slopes (see Figures 7, 8, and 9).



Figure 7. View from auxiliary photo point 26a looking east to south over grid.



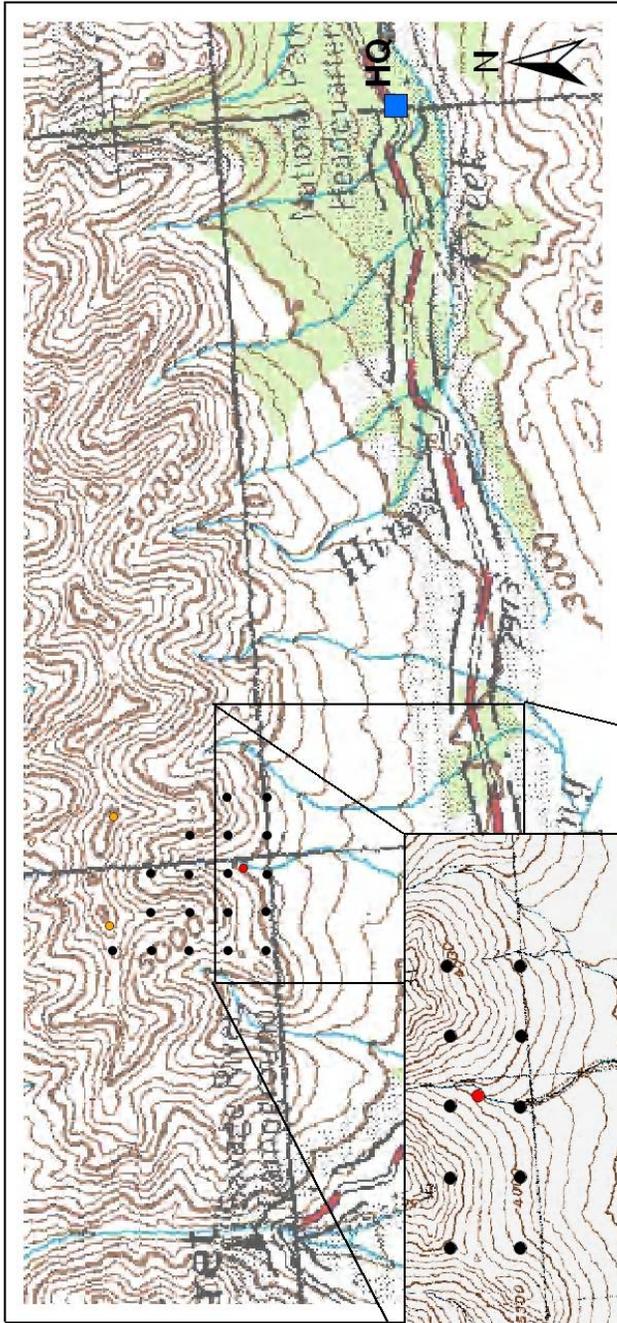
Figure 8. View from auxiliary photo point 26a looking west at Point 25 (left edge of photo) and panning to the north.



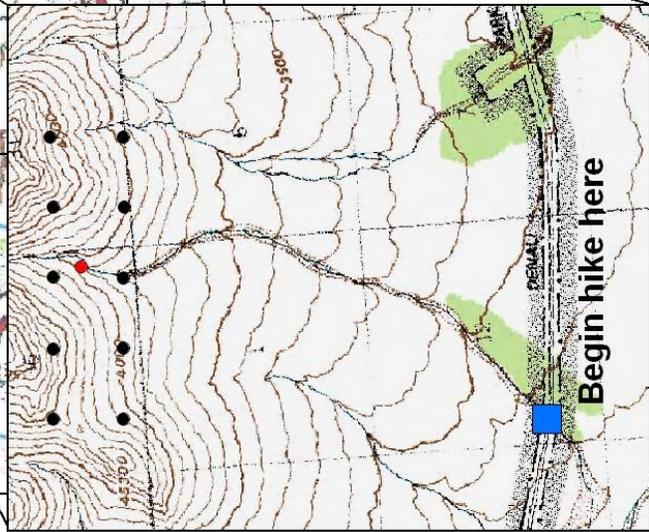
Figure 9. View from auxiliary photo point 27a looking southeast to southwest.



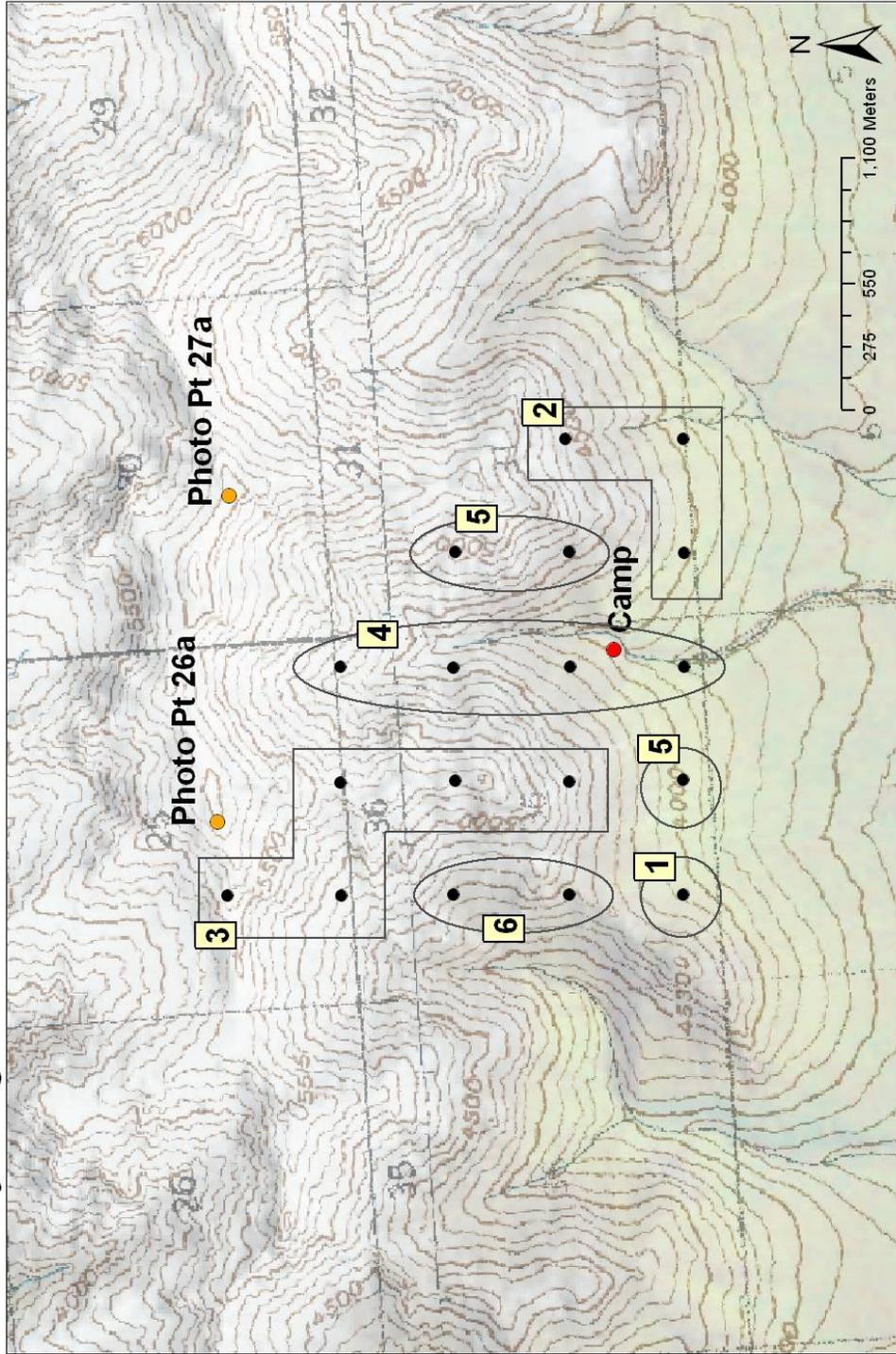
Figure 10. A "typical" Mt. Healy mini-grid quadrat shown from Point 14.



Mt Healy Ridge Mini-Grid Access



# Mt. Healy Ridge Mini-Grid



Points are grouped by sampling day number showing in which order we sampled them.