

A winter landscape featuring snow-covered mountains in the background, a snow-covered valley in the middle ground, and evergreen trees in the foreground. The scene is captured in a cool, blue-toned light, suggesting early morning or late afternoon. The mountains are rugged and covered in a thick layer of snow. The valley is a wide, flat expanse of snow, with scattered evergreen trees and some bare, snow-covered branches in the foreground. The sky is a clear, pale blue.

**Working with local trappers to map  
mineral licks in the Brooks Range**

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2018 BNZ LTER Symposium*





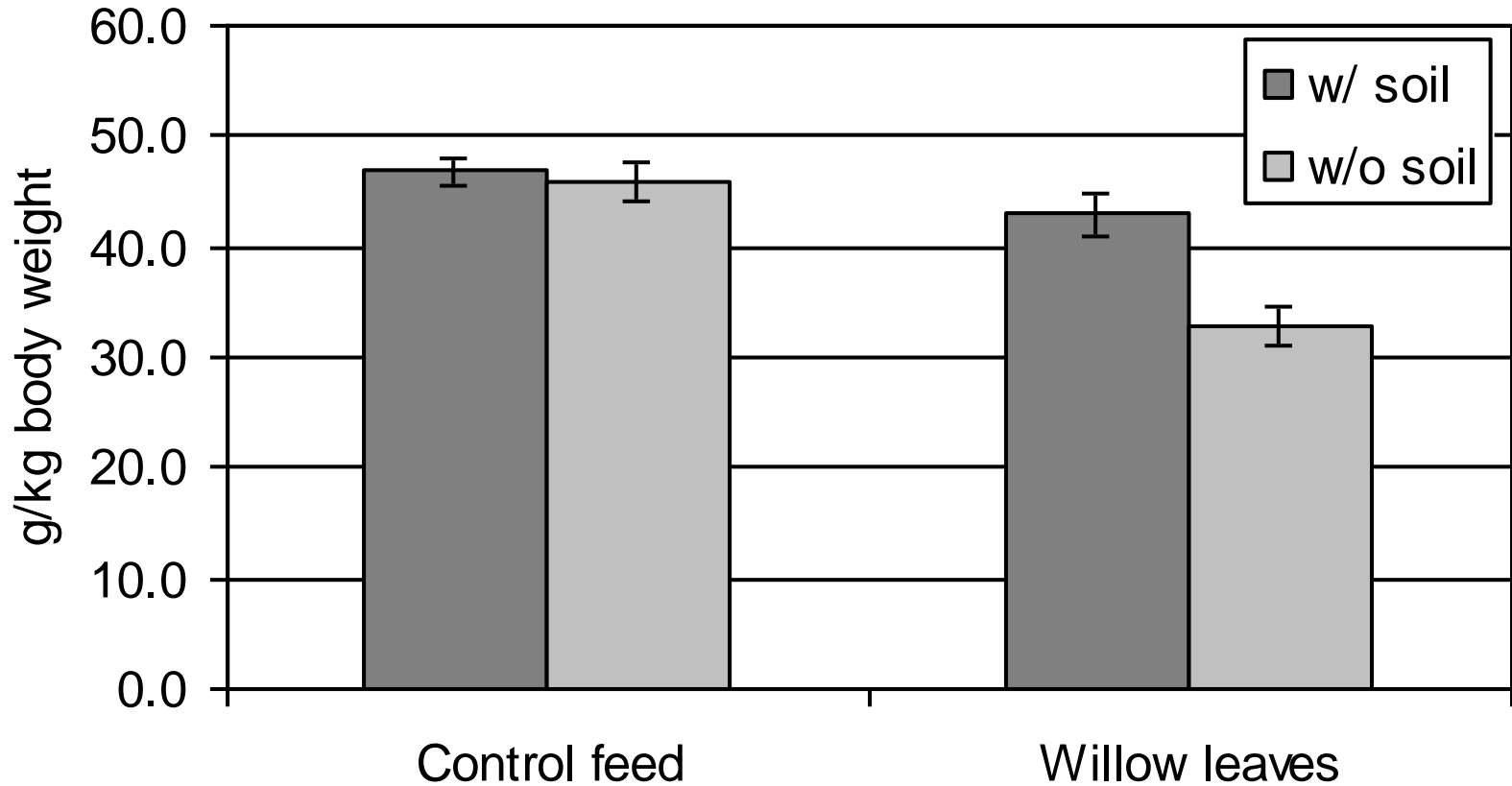


High concentrations of 2° compounds in CAG avoided by eating older-aged stems. Moreover the effects of 2° compounds can also be diluted by decreasing the the bark : wood ratio of forage stems selected when foraging. The common rejection of CAG twigs of both willow and birch is consistent with this idea.

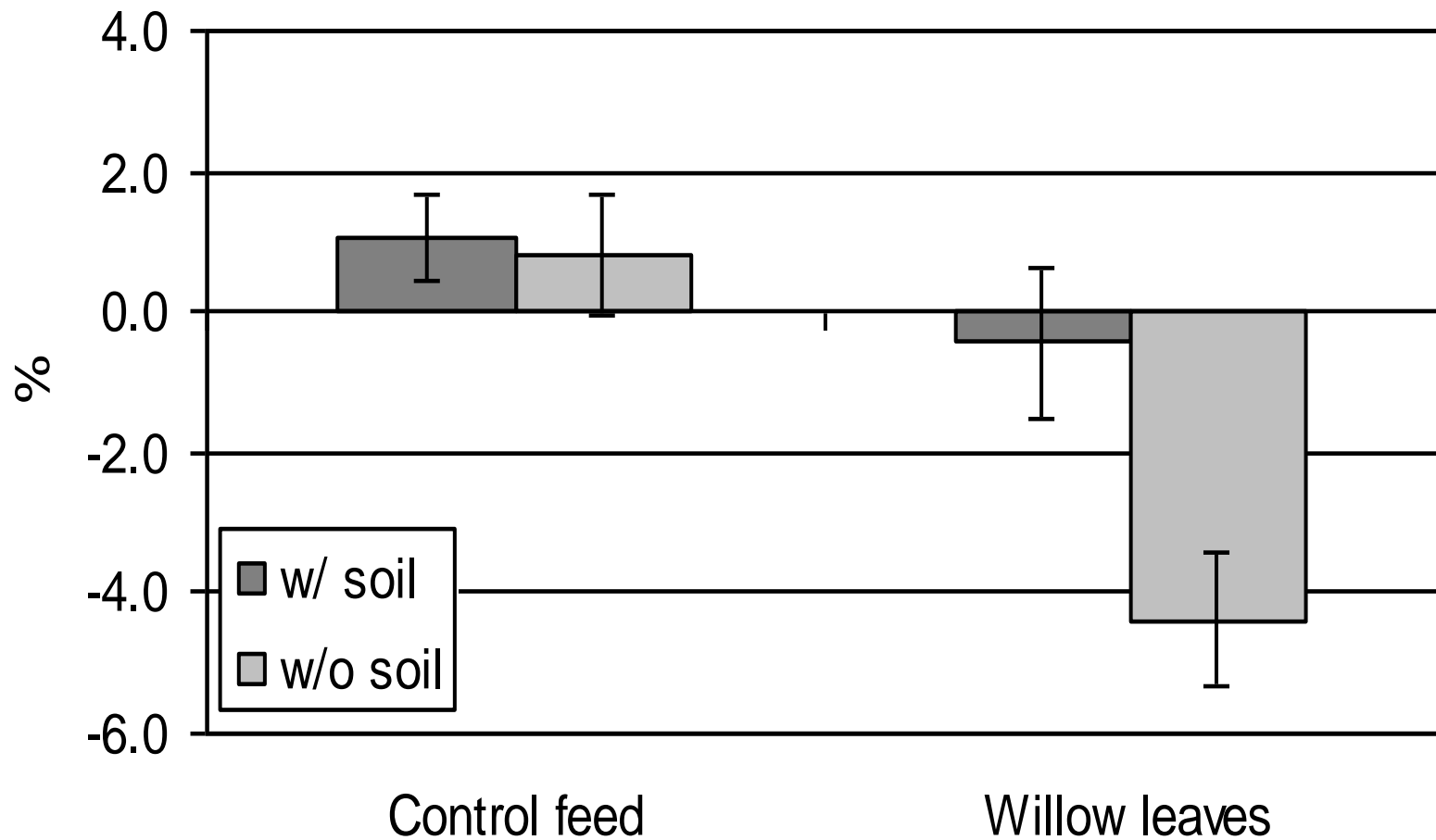


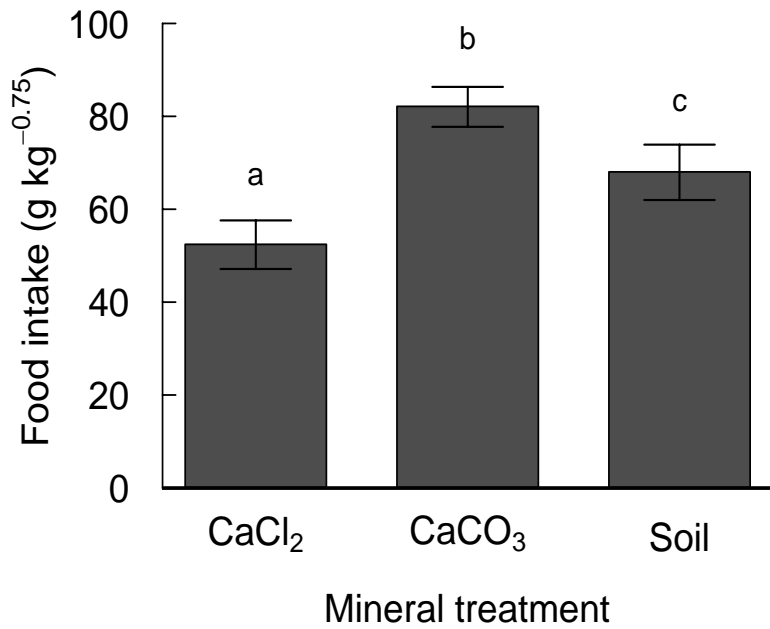
# Food intake in summer

## Mean daily feed intake

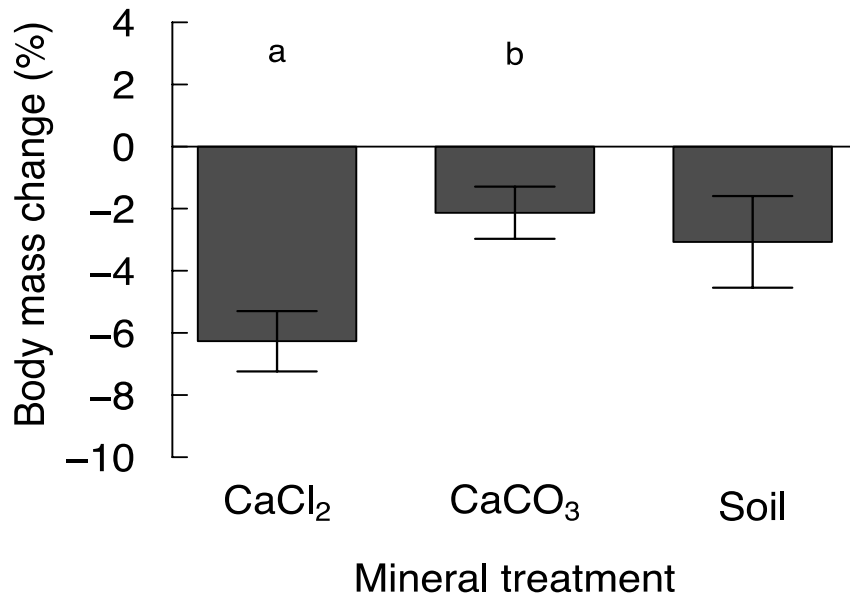


# Mean body weight change





Access to mineral soil and CaCO<sub>3</sub> most enhance food intake...



which reduces the rate of weight loss in captive snowshoe hares kept on a diet of winter-dormant felt-leaf willow stems.









## Soil properties from The Hammon Bluff lick used by herbivores near Wiseman, Alaska

	Mean	±	SE
pH	8.9	±	0.0
CaCO <sub>3</sub> (%)	12.5	±	0.4
Clay (%)	4.8	±	0.2
CEC (meq.100 g <sup>-1</sup> )	1.4	±	0.1
Na (mg kg <sup>-1</sup> )	313	±	16
K (mg kg <sup>-1</sup> )	6492	±	246
Ca (mg kg <sup>-1</sup> )	14701	±	717
Mg (mg kg <sup>-1</sup> )	14537	±	246
P (mg kg <sup>-1</sup> )	802	±	12

Hares consume mineral soil (geophagy) in order to obtain critical nutrients and to combat the adverse effects of plant secondary compounds







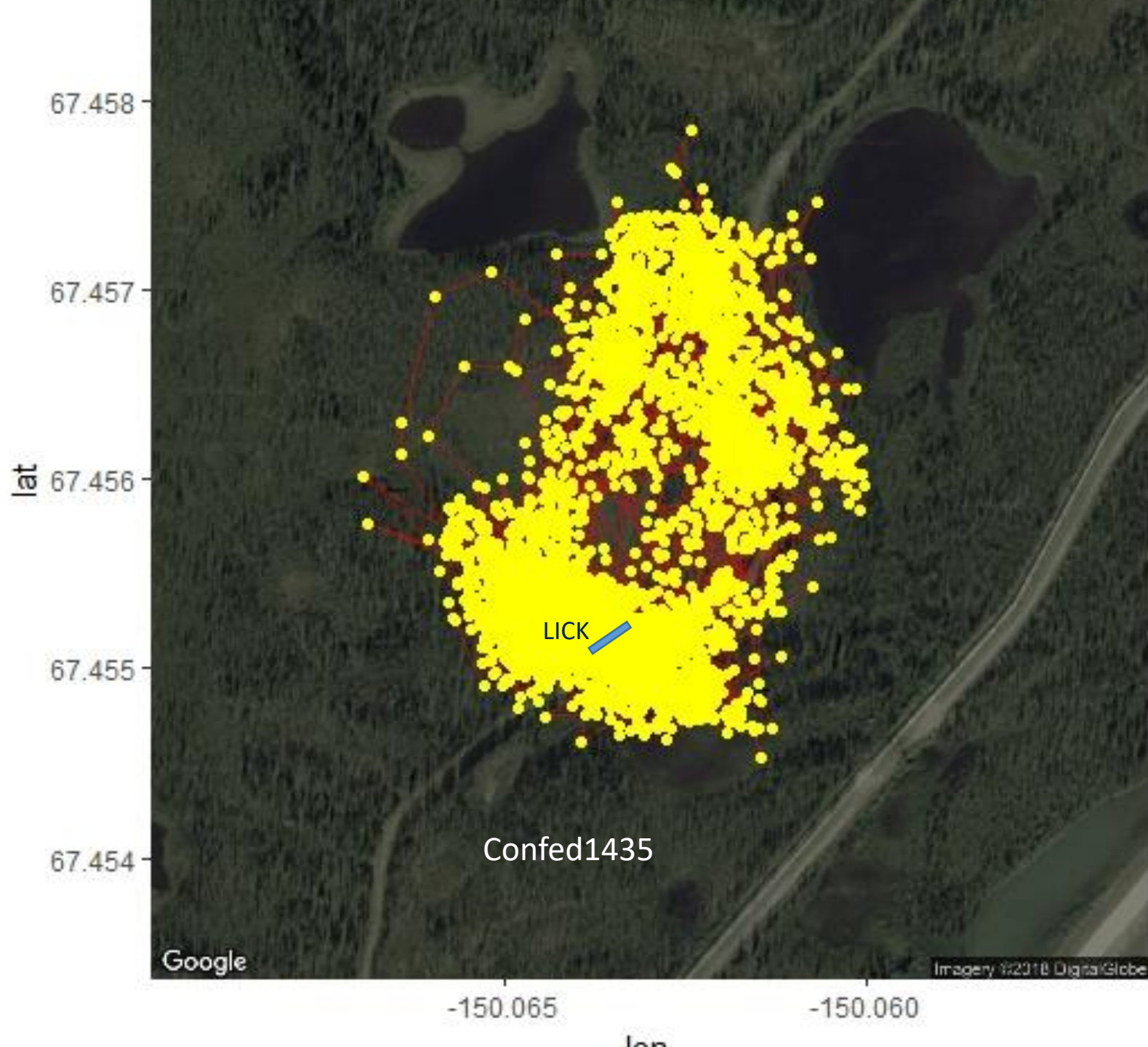






Ⓜ HARE CAM 11 19°F-7°C ●

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Hammond River (high cover)			
Month	#Visits/Day	% Night	
August	5.6	29%	
September	9.0	52%	
October	9.3	65%	
November	3.8	95%	

Nolan Flats (low cover)		
Month	#Visits/Day	% Night
October	2.8	100%
November	1.0	100%
December	1.0	100%
January	0.4	100%
February	0.3	100%

