

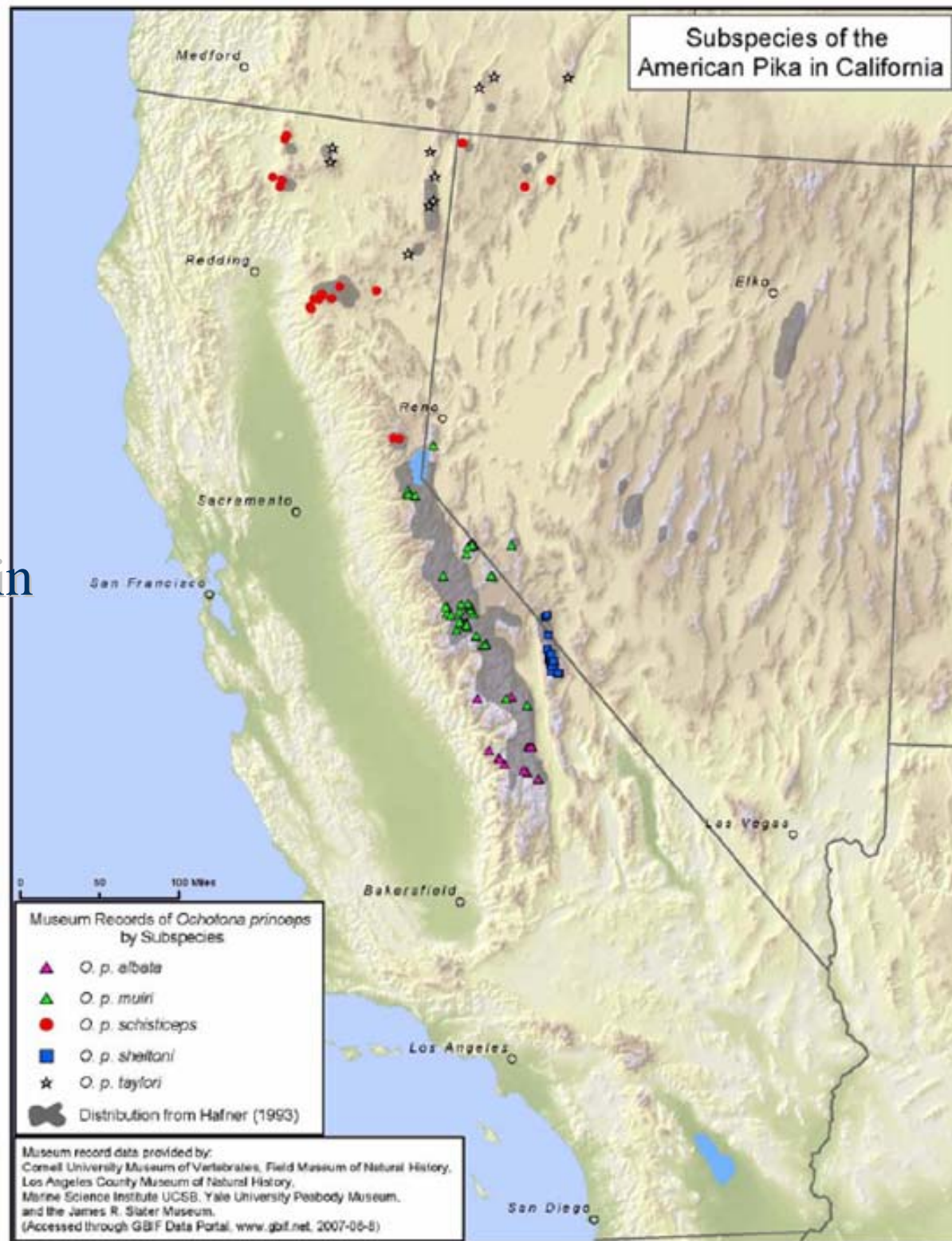
A photograph of a pika, a small mammal with long ears and a bushy tail, sitting on a light-colored, textured rock. The pika is looking towards the camera. The background is a blurred, rocky landscape.

# **Status of pika at historic northern Sierra sites**

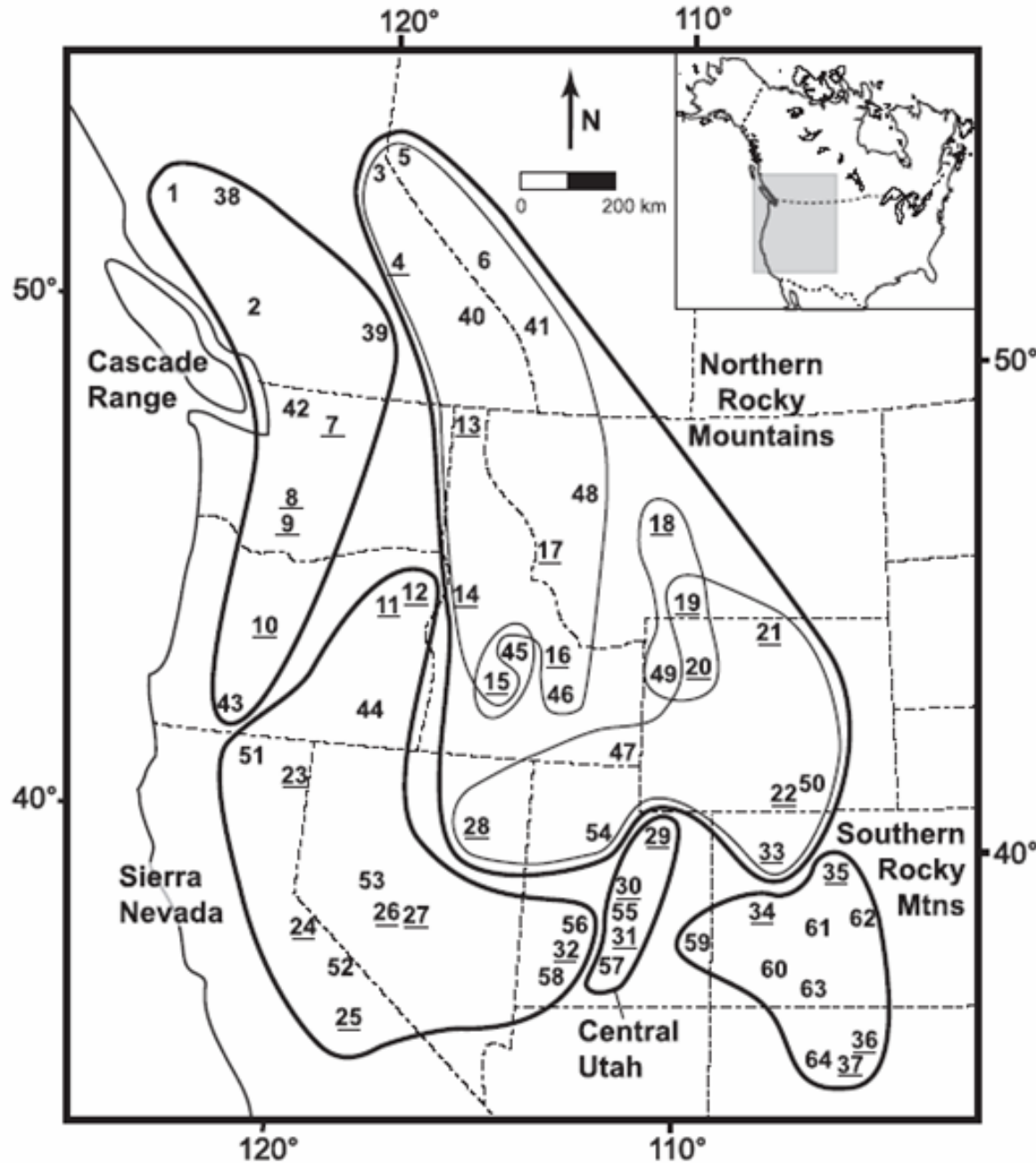
David Wright  
California Dept. of Fish and Game  
North Central Region (R2)  
Rancho Cordova, CA

# American pika

- Lagomorph
- Distinctive
- Restricted
- 36 named subspecies, 5 in California
- **albata** – Mt. Whitney
- **muiri** – Yosemite
- **sheltoni** – White Mtn.
- **shisticeps** – gray-headed
- **taylori**



# Subspecies questionable?



Mitochondrial DNA  
lineages:

Galbreath et al. 2009  
J. Biogeography

Future conditions (2 x CO<sub>2</sub>)



...a subspecies,  
...atens...

Galbreath et al. 2009  
Evolution

Similar projection  
using different  
approach by Scott  
Loarie, in press



# Ergo:

BEFORE THE CALIFORNIA FISH AND GAME  
COMMISSION

PETITION TO LIST THE AMERICAN PIKA (*OCHOTONA  
PRINCEPS*) AS THREATENED UNDER THE CALIFORNIA  
ENDANGERED SPECIES ACT



American pika © John C. Mosesso

CENTER FOR BIOLOGICAL DIVERSITY, PETITIONER

AUGUST 21, 2007

# Status in California: Unclear

- Few localities documented
- Many records old
- No trend studies

**Need: More information!**







# Questions

- What historic pika localities exist in our area?
  - Are pikas still present at these sites?
  - Is there any pattern of persistence vs. elevation (temperature)?
- 
- These questions address issues both of distribution (where) and trend (change)
  - But not a comprehensive spatial survey



# Methods

- Compile historic records
  - Museum specimens ... online databases
  - Historic field notes
  - Other
- Revisit historic sites (> 25 years old), determine pika +/-
  - Survey protocol adapted from E. Beever, C. Ray
  - 'find 'em, you're done;' extensive searches if not found



Alaska, Nome, S. Koonen  
Aug. 3, 1965 84-10-30-20 ♀  
Bush - 426

19  
190

Cisco, Placer Co.  
Oct. 2

842

# Archival field

Grimmell-F113

Cisco, Placer Co.  
Oct. 3

843

obtained. There is considerable talus about the summit— of block of stone, affording in the recesses ideal retreats for conies and wood rats; but I failed to find signs of either. I did see, however, considerable increment of Woodchuck, this being possibly the westernmost edge of the range of the species. I saw one Citellus b. beecheyi in a rock slide near the summit; also several Eutamias amoenus.

either amoenus, frater, or senex. This morning, 7 to 10, I went up to Cisco Butte, 6500 ft, and vicinity. The Butte is a glacier-worn rocky summit, from which a commanding view is



Alexander 1910 Aug 17 Glen Alpine Springs, 122  
Eldorado Co., Calif.

by way of Grass Lake. Saw the first Ochotona in rock slides about a mile this side of Heather L. The trail at this point leads into rocky canyon with continuous rock slides on either side. Here we heard the quick double chirp of <sup>the O.</sup> quita frequently and saw their run-ways at the foot of the slides, among the grass and brush. Saw two disappear in these run-ways, and then return among the rocks with their mouths full of grass. Later found almost an armful of fresh grass under a sliding rock. They know the passages under the rocks perfectly. One little O. was very friendly and came within a few feet of me. He would disappear like a ghost and come up several yards away then he took again near me at some other point. Several times he chirped and would hold his head over one side while a friend in the distance would answer.

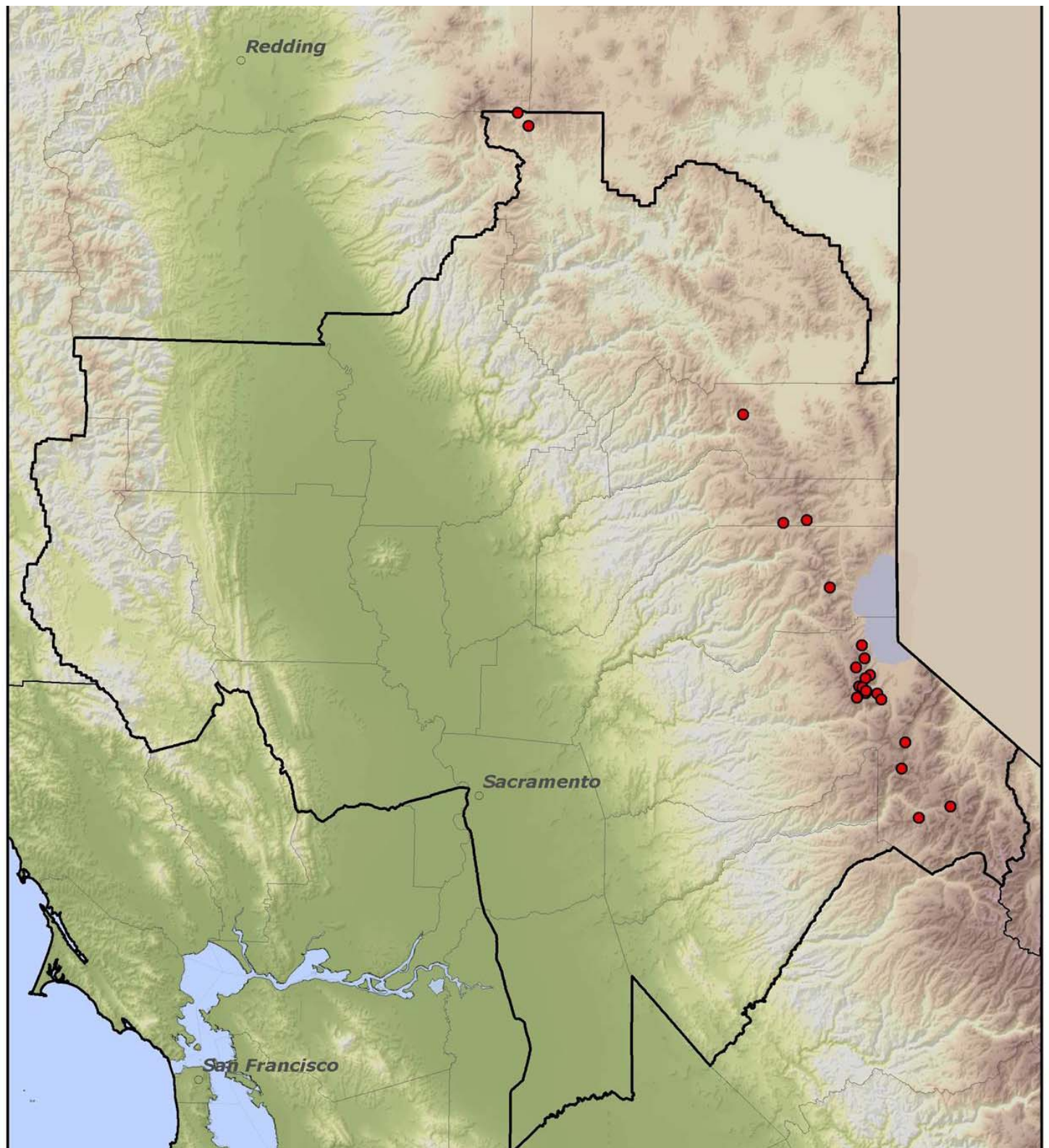
Noted gopher sign through very scanty at the lower end of Heather L. set out four traps and obtained one gopher. Saw two marmots in the rocky canyon. One was grinding his teeth and the other was feeding in the grass near the stream. The bed of the canyon, about a



Aug. 17, 1910. "[Walked to Heather Lake taking trail] by way of Grass Lake. Saw the first *Ochotona* in rock slides about a mile this side of Heather L. ..."

# R

- So far, v  
localitie
- A few
- A few  
Donne
- Most f
- 19 from



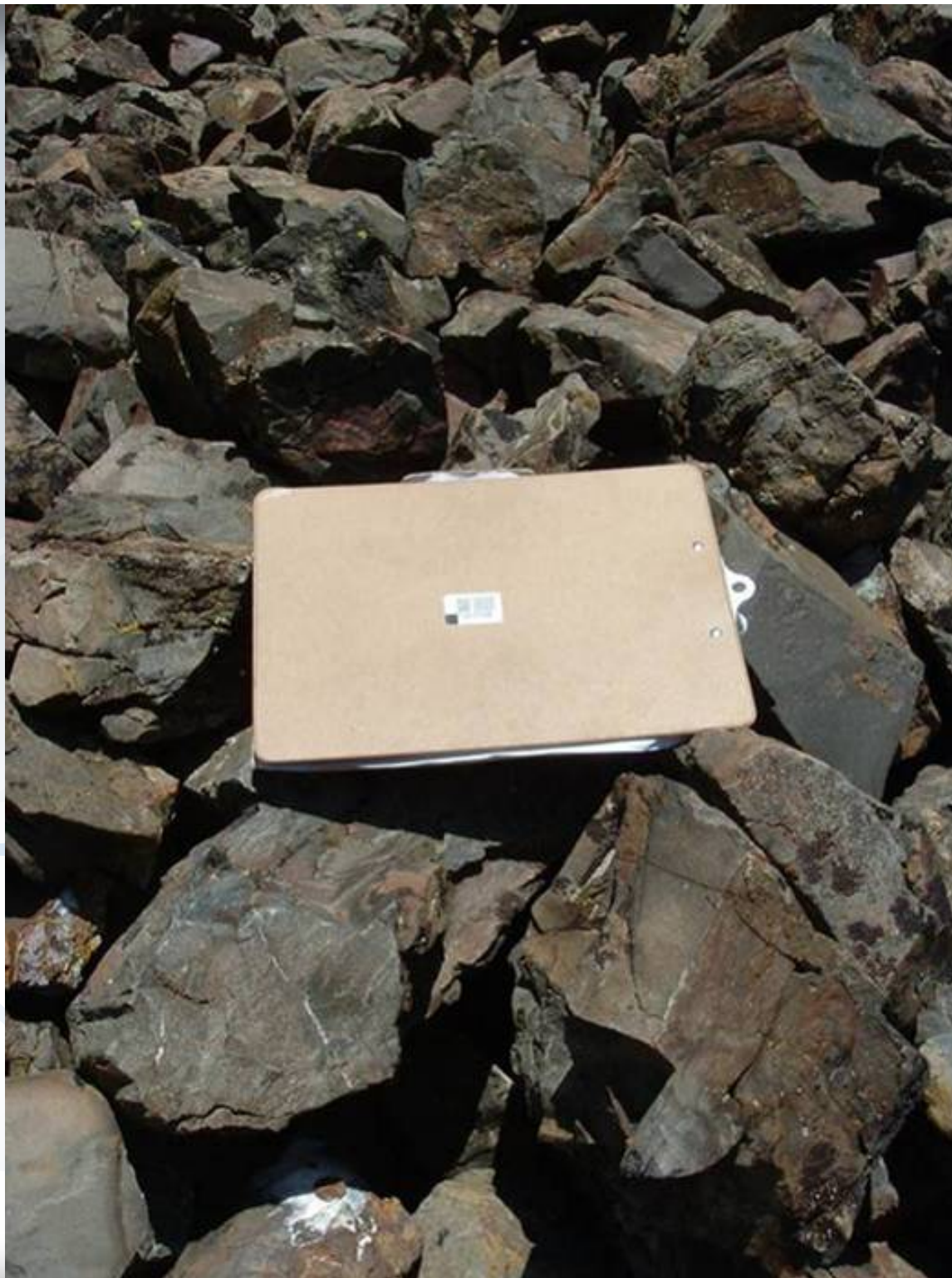


# Results - Revisits

- 1 site – Flatiron Mtn, near Lassen NP – was revisited by John Perrine, and is presently occupied by pika (J. Perrine, pers. comm.)
- 1 site – Lucille L, in Desolation Wilderness – had pika specimens collected in the vicinity from both 1910 and 2002.
- We revisited 5-6 additional historic sites and found pika sign at all but 1.



“Sign”







**“Fresh”**





“Old”





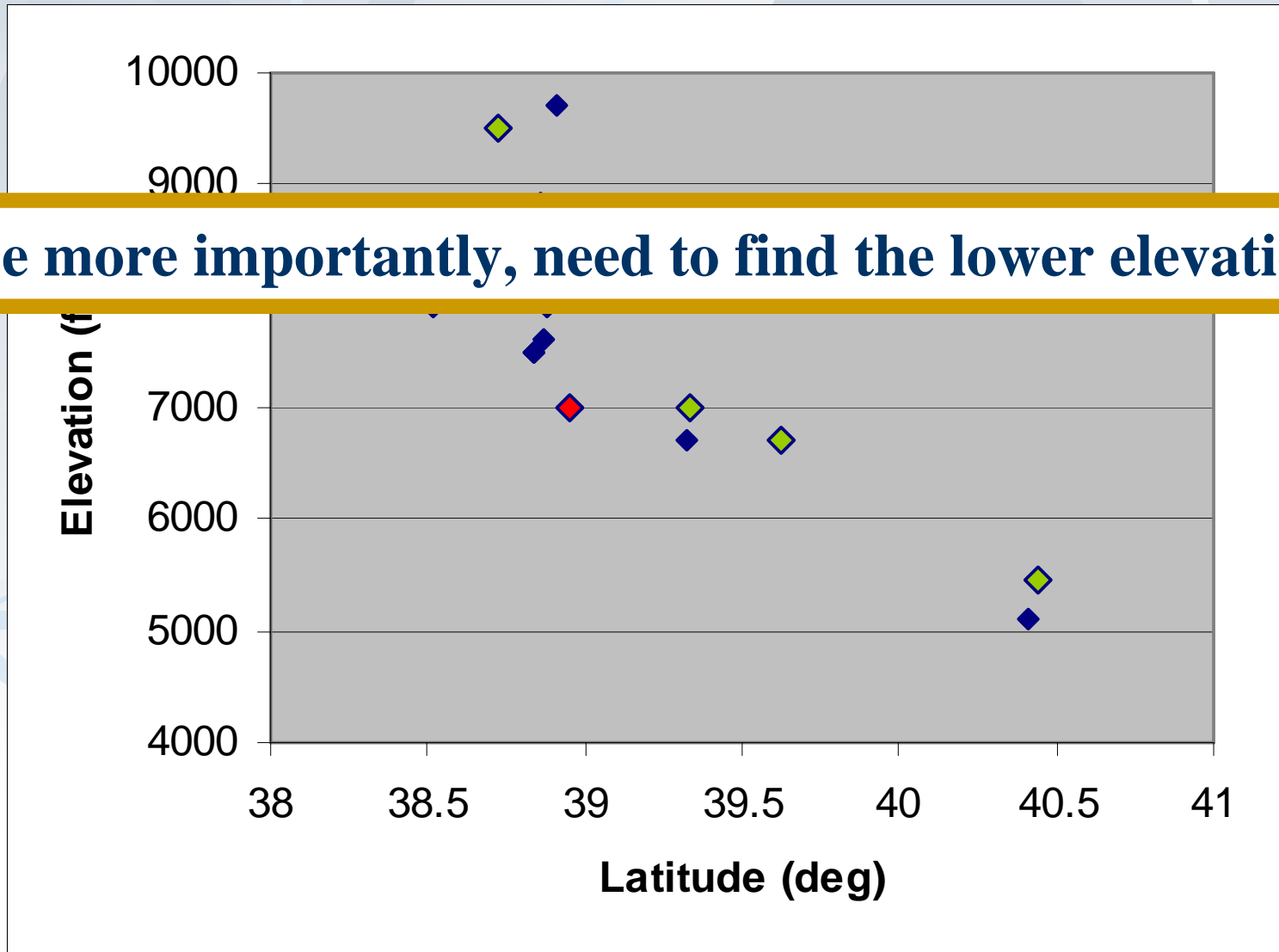




Site (Co.)	Elevation	Pika Sign
Flatiron (PLU)	5400'	All types
Deadman (SIE)	6100'	fr. scat; ?call (1)
Donner Pass E side (PLA)	6800'	calls, fr. scat
Eagle Falls (ELD)	7000'	none
Echo Pk/Angora Saddle (ELD)	8700'	calls, fr. scat
Crater Lake (ALP)	8700'	All types



# Can we test elevation effects?



# Next steps ... ?

- Finish revisits of historic sites
- Research and revisit any additional historic sites
- Compare and analyze with Grinnell resurveys
- Temperature loggers at strategic sites
- Investigate how long scat lasts
- Quantitative inventory of pika in Sierra Nevada
- ...



photo by mahalie stackpole