INSTRUCTIONS FOR PIKA SURVEYS IN CALIFORNIA

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Survey Methods: Search for pika and pika sign in preferred habitat: talus fields (boulder slopes) with open rock matrix; rock sizes ranging from 25-90cm; minimal fine sediments or soil within the talus; sloping terrain from shallow to steep; in California above 1700m, more commonly above 2800m especially at southern latitudes. No obvious preference for aspect or substrate type. Preferred talus locations are adjacent to patches of herbaceous vegetation (shrub and forbs of diverse species), less commonly adjacent to conifer forests or shrublands, or locations of expansive talus fields without surrounding or interspersed vegetation. Time search for 30 minutes. Note if 1) pika seen or heard, 2) pika indirect sign found, or 3) no sign of pika. Distinctive pika calls are raspy chirps (1-3 repetitions per set): “chee chee chee”, but vary geographically.

For the talus survey, start near the lower edge of talus (~20m of the border) and search for indirect pika sign, staying attentive to pika sightings and vocalizations. Look into rock openings below the surface, especially those that have protective overhangs and access into deeper rock matrices (i.e., not where soil is compacted). A flashlight helps to see into the openings. Pika sentry or perch rocks are ~20cm diameter, often conical, and often situated on the center floor of the opening, allowing a view for perched pika toward the talus below. Pika sit on these perches and pellets and urine stains accumulate on and below them. Urine stains accumulate to about 10cm dia; much larger & “messier” urine stains are made by woodrats and can be confused for pika sign. Fresh pika urine stains are white-yellowish and smeary; old urine is chalky white with flaking edges and looks like typewriter “white-out”. Pika fecal pellets are rabbit-like, completely round (like BB gunshot), ~2-3 mm diameter, dark green-brown when fresh, becoming black then white as they age; with more aging pellets decompose and become soil-like. Very recent pellets are often ‘glued’ into urine on sentry rocks. Collect intact pellets if possible (plastic or paper bag) and note condition of urine stains. Pika (as all rabbit relatives) produce a second type of feces known as caecotrophs – these are rarely seen but are tar-like, black, smeary, and flat, ~1cm diameter.

Search also for pika haypiles, which are concentrated accumulations of leafy vegetation in stacks up to 1.5m dia, usually but not always near the base of the talus field. They can include diverse species (not just grasses or “hay”). Because pika prefer green vegetation, their haypiles comprise mostly leaves and green branches, not piles of woody stems, the latter being woodrat sign. Branches are up to 30cm long. Haypiles are usually separated in the talus by >25m. Search also for feeding dens, which are characterized by tightly stuffed vegetation around the basal margin of large boulders (1.5m – 3m diameters) perched amidst finer talus matrix. Abundant pellet piles are usually intermixed with the stacks of vegetation.

Location Information. Use a GPS unit to record latitude, longitude, and elevation. Identify the sites by a name related to the general region (canyon, mountain peak), and number sites accordingly. Do not record sites <75M distant from one another (these are likely the same animal). Describe, as possible, the geomorphic landform, substrate, slope aspect, and any additional notes or comments that seem useful. If possible, photograph: 1) pika perch/den microsite, 2) talus site, & 3) environmental context.

Photos: 1) Typical pika pose on perch; 2) Fresh urine stain on pika perch with fresh pellets adhering; 3) Fresh pellet pile; 4) Large haypile under typical feeding-den boulder; 5) Excellent pika habitat – boulder-stream talus adjacent to wetland. Photo credits #1: A. Tshcherbina; #2-5: C. Millar

References:

AMERICAN PIKA (Ochotona princeps) SURVEY FORM (sample)

OBSERVER: Connie Millar  
Address: 800 Buchanan St  
Albany, CA 94710  
Affiliation: US Forest Service  
Phone: xxx-xxx-xxxx  
Email Address: xxx@fs.fed.us

OBSERVATION DATE: July 4, 2009  
TIME: 1330 hr  
SITE SURVEYED FOR: 30 minutes

SITE NAME: Lundy Cyn  
SITE #: LC-I  
LOCAL REGION: Moat Lake cirque  
COUNTY: Mono  
MTN RANGE: Sierra Nevada  
STATE: CA

LAT °N: 38° 3.210  
LONG °W: 119° 16.325  
ASPECT: 211° (SW)

ELEV: 3159 m  
Estimated by: GPS X  Map  eMap (Topo, Google Earth)

LANDFORM: Circle all that are applicable

talus  rock glacier  boulder stream  patterned ground  inselberg  eroded bedrock
anthropogenic  rockfall  moraine  lava flow/lava cave  tephra
rock crevice  cliff face  Other and/or more landform detail:
Large boulder-stream talus field covers extensive slope; adjacent to wetland with abundant vegetation

SUBSTRATE:
Circle if: granitic  metamorphic  sedimentary  igneous

Additional substrate detail:

PIKA Circle if: SEEN  HEARD  PIKA SIGN (below)  NO PIKA SIGN (after 30 min search)

PELLETS: fresh  old  few  abundant  COLLECTED Yes  X  No
Caecal feces observed  Y  or  N  X

URINE SIGN: fresh (silver-white & smeary)  X  old (chalk white & flakey)  

HAYPILE: present  X  if yes, plant material green  or  brown  X  Haypile absent

Surrounding vegetation (plant species or plant community): Distance to live vegetation 50m/ft

Salix lakeside community; Leptodactylon pungens, Artemesia spp, Ericameria suffruticosa, Symphoricarpus spp.

Sign of other species? Marmot  Sm Rodent  None  Other:
SITE PHOTOGRAPHED: Y  X  N

ADDITIONAL NOTES -- use back as needed
AMERICAN PIKA (Ochotona princeps) CALIFORNIA SURVEY FORM (vs 102710)

OBSERVER: Affiliation: 
Address: Phone: 
Email Address: 

OBSERVATION DATE: TIME: ___ hr SITE SURVEYED FOR ___ minutes 

SITE NAME: COUNTY: 
SITE ID #: MTN RANGE: 
LOCAL REGION: STATE: 

LATITUDE °N: LONGITUDE °W: ASPECT: 

ELEV: ____ m or ft Estimated by: GPS__ Map__ Other (eMap, Topo, Google Earth) __ 

LANDFORM: Circle all that are applicable: 

talus rock glacier boulder stream patterned ground inselberg eroded bedrock 
anthropogenic rockfall, moraine lava flow/lava cave tephra rock crevice 
cliff face Other and/or more landform detail: 

SUBSTRATE: 
Circle if: granitic metamorphic sedimentary igneous other 

More substrate detail: 

PIKA: Circle if SEEN HEARD PIKA SIGN (below) NO PIKA SIGN (30 min search) 

PELLETS: fresh old few abundant none COLLECTED Yes___ No___ 

Caecal feces observed Y___ or N ___ 

URINE SIGN fresh (white-yellow & smeary)___ old (chalk white & flakey)___ 

HAYPILE present __, if yes, plant material: green___ brown___ Haypile absent ___ 

SURROUNDING VEGETATION (plant species or plant community): 

Distance to live vegetation ______m or ft 

Sign of other species?  Marmot Sm Rodent None Other: 

SITE PHOTOGRAPHED: Y__ N__ 

ADDITIONAL NOTES: Use back side