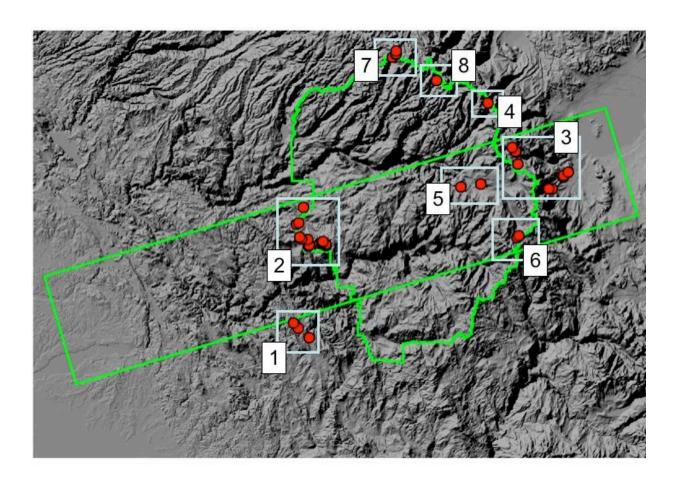
Grinnell Resurvey Project 2005 - Mammalian Surveys

Survey sites and records. This year like last, we expanded our sampling to include "Grinnell" sites outside of the park, including Sweetwater Mine to the west and Walker Lake, Bohler Canyon and Williams Butte to the east. We v

This year's survey was unique in that snow level was quite high until very late, forcing us to cancel one back country trip. One effect of the snow was the apparent poor survival of deermice, *Peromyscus maniculatus*, and perhaps also the piñon mouse, *P*. truei at higher elevations. P. maniculatus is often one of the more abundant species caught in our surveys but this year they were somewhat rare. Most obligate hibernators showed little effect of the unique winter. This year we again caught *Peromyscus truei* within the park, but this time on the west side, near Hazel Green. This habitat also contained Chaetodipus californicus, a new record for Yosemite National Park. The habitat was an area, originally sugar pine and yellow pine, recovering from a burn in 1988. P. truei was not found at Lyell Canyon where it was caught in 2003. Another new record for the park is *Sorex tenellus*, a rare species of shrew in the western Great Basin and Sierra Nevada. Two specimens were caught: one at Virginia canyon, a site not visited in the original survey, and one at upper Lyell Canyon. These taxa, plus Reithrodontomys megalotis detected in 2003, bring to four the number of new mammalian taxa detected in Yosemite National Park as part of our recent surveys. A serendipitous finding for 2005 was presence of alpine chipmunk, *Tamias alpinus*, at Kerrick Meadow. Our herpetologists trapped near their campsites and detected this apparently now rare species. This constitutes the northernmost record of this species.



Map of sampling localities for our 2005 mammal survey effort. Each numbered

box refers to trapping periods described below. Green rectangle overlaps Grinnell and Storer's Yosemite Transect. The outline of Yosemite National Park is included. Some trapping periods fell completely outside the park.

1. Sweetwater Creek east of Feliciano Mountain (9 May – 13 May)

Chris Conroy and Jim Patton trapped at two localities on the eastern slopes of Feliciana Mountain, north of Mariposa, in the Sierra National Forest. Feliciana Mtn., including Sweetwater Mine and Sweetwater Creek, was visited by Tracey Storer and Walter Taylor, members of the "Grinnell" team, in 1915.

We began work here by camping in the Sierra National Forest at the Jerseydale campground and drove daily to the abandoned Sweetwater Mine. We trapped along Sweetwater Creek and within 200 meters of the mine and associated buildings. The habitat consisted of dense, but second growth pines and oaks. Around the mine buildings was some grassy habitat and we secured voles and harvest mice around the edges of the grassy yard. We observed yellow pine, cedar, white fir, black oaks and dogwood, with some sweet pea around the mine buildings. We also established traplines between the mine and the campground in a mixed habitat of pines, mountain misery, and manzanita.

We extended a total of 352 total trap nights at Sweetwater Mine and 210 trap nights 1.2 mi SE Sweetwater Mine; a total of 47 animals caught at former (13.35% trap success) and 15 (7.14%) at latter (listed below). Along the creek 120 trap nights netted only four specimens (0.33%). Patton also set 3 sets (pairs) of Macabee gopher traps one night at the Jerseydale Campground to catch three gophers (100%).

| Specific Locality | Latitude | Longitude | Habitat |
|---|----------|------------|---|
| Sweetwater Mine, 3669 feet | 37.57775 | -119.88244 | riparian, black oak, mixed conifer |
| Jerseydale Campground, Sierra National Forest, 3665 feet | 37.54498 | -119.83822 | Yellow Pine, Sugar Pine, Mountain Misery |
| Sweetwater Creek | 37.58148 | -119.88191 | mixed conifer, Dogwood |
| 1.2 mi SE Sweetwater Mine, 4173 feet | 37.56642 | -119.86851 | manzanita scrub, black oak, mixed conifer |

Mammal species present, by habitat:

| Family | Species | Habitat | Commonness | Number of | Numbers |
|--------|---------|---------|------------|------------|----------|
| | | | | localities | captured |

| Soricidae | Sorex trowbridgi | stream edge in mixed | uncommon | 2 | 5 |
|------------|---------------------------|----------------------------|----------|---|----|
| | | conifer | | | |
| Sciuridae | Tamias merriami | oak, mixed conifer | uncommon | 2 | 2 |
| Geomyidae | Thomomys bottae | mixed conifer | common | 1 | 3 |
| Cricetidae | Neotoma macrotis | oak, mixed conifer | common | 2 | 8 |
| | Peromyscus boylii | oak, mixed conifer | common | 3 | 34 |
| | Peromyscus truei | manzanita, oak | uncommon | 1 | 4 |
| | Reithrodontomys megalotis | oak, mixed conifer | common | 2 | 7 |
| | Microtus californicus | oak, mixed conifer | uncommon | 1 | 4 |

2. Crane Flat, Merced Grove, Hazel Green – western margins of Yosemite ${\bf N}$

| Crane Flat, YNP, 6311 ft | 37.75139 | -119.79149 | mixed conifer |
|--------------------------------------|-----------|-------------|------------------|
| | | | (same site as |
| | | | trapped in 2003) |
| Crane Flat Ranger Station road, YNP, | 37.75331 | -119.80890 | manzanita scrub, |
| 6400 ft | | | mixed conifer |
| Crane Flat | 37.75817 | -119.80033 | Yellow Pine, oak |
| Crane Flat | 37.7547 | -119.8042 | Yellow Pine, oak |
| Crane Flat | 37.75629 | -119.80145 | Yellow Pine, oak |
| Crane Flat, along Crane Creek | 37.74865 | -119.79209 | mixed conifer, |
| | | | riparian |
| Hazel Green, 5540 ft [outside YNP | 37.767375 | -119.864834 | black oak, mixed |
| boundary] | | | conifer |
| 0.5 mi SE Hazel Green, YNP, 5619 ft | 37.76312 | -119.85983 | Ceonothus scrub, |
| | | | old burn |
| Merced Grove Trailhead | 37.76208 | 119.84264 | mixed forest, |
| | | | Mountain |
| | | | Whitethorn |
| Merced Grove | 37.74782 | 119.84052 | mixed forest |
| Merced Grove | 37.74899 | 119.83862 | mixed forest, |
| | | | Riparian |

Mammal species present, by habitat:

| Family | Species | Habitat | Commonness | Number of localities | Numbers captured |
|--------------|-----------------------------|---|-------------|----------------------------|------------------|
| Soricidae | Sorex trowbridgii | wet meadow (pitfall cups) and Ceonothus chaparral | common | 5 | 9 |
| Sciuridae | Tamias quadrimaculatus | mixed conifer | common | 6 | 14 |
| | Tamias speciosus | mixed conifer | very common | 5 | 32 |
| | Spermophilus beecheyi | mixed conifer | common | 4 | 11 |
| Heteromyidae | Chaetodipus californicus | Ceonothus chaparral | uncommon | 2 | 3 |
| Cricetidae | Neotoma macrotis | Ceonothus chaparral | uncommon | 1 | 1 |
| | Peromyscus boylii | oak, mixed conifer, | very common | 2 | 11 |

| | chaparral | | | |
|---------------------------|-------------------------------------|-------------|---|-----|
| Peromyscus truei | Ceonothus chaparral | very common | 2 | 13 |
| Peromyscus maniculatus | oak, mixed conifer, chaparral | abundant | 7 | 126 |

Noteworthy records: The occurrence of the California pocket mouse, Piñon mouse, and Large-eared woodrat on the *Ceonothus cordulatus* clothed slope just inside the YNP boundary at 0.5 mi SE Hazel Green represent the first records of the first two species for the Park and the highest elevational record of the latter species in the Park. Previous records of both California pocket mice and Piñon mice were from the vicinity of El Portal, some 3000 feet lower in elevation; the previous localities of the Large-eared woodrat are from Yosemite Valley, some 1500 feet lower in elevation. All three species have probably responded, at least in part, to the relatively recent fire conversion of the slope where trapped from mixed conifer forest to *Ceonothus cordulatus* chaparral, as the latter dense shrub on steep slopes is typical habitat for each of these species.

3. Mono Basin and eastern slope of the Sierra Nevada: Walker Lake, Walker Creek, Bohler Canyon, William's Butte, Gardisky Lake Trail, South End Saddlebag Lake (9-16 July 2005)

Chris Conroy, Jim Patton, Kim Tsao, and Emily Rubidge revisited "Grinnell" sites south of Williams Butte, in Mono Basin. Rubidge and Patton trapped at our campsite on Bohler Creek, which had been visited by Patton the previous August-September (2004) and trapped both on the Gardisky Lake trail and at Saddlebag Lake in the Sierra National Forest just east of Tioga Pass. The area around Williams Butte is a "Grinnell" site; our efforts in the vicinity of Saddlebag Lake were directed specifically to looking for alpine chipmunks (*Tamias alpinus*) along the ridge from which the species was recorded by Grinnell et al.

Conroy and Tsao trapped at Walker Lake, also a historical site, as well as in the dry surrounding Jeffrey Pine habitat and downstream along Walker Creek. The Walker Lake habitat was moist forest with flooded willow habitat along the lake edge with significant historical encroachment of Lodgepole pine into the historically dense stands of Aspen (we compared historical to modern photos). Up the steep slopes the habitat quickly became more xeric with loss of Lodgepole pine and presence of White Fir, Mountain Juniper and Jeffrey Pine.

JLP and ER used 300 total trap nights in the sagebrush and aspen riparian communities at Bohler Creek, plus 138 "trap nights" of pitfall cups placed along the creek. JLP and ER also had 360 trap nights at two close-by sites on the Gardisky Lake trail and 240 trap nights at Saddlebag Lake, Inyo National Forest.

CJC and KT used 450 trap nights (400 trap nights Sherman traps plus about 50 trap nights from pitfalls) at Walker Lake for 28 captures (6.22%); 236 trap nights (160 Shermans, 76 tomahawks) in the dry, Jeffrey Pine habitat starting over the small ridge

south of the Walker Lake trailhead parking lot and heading roughly south at that elevation; 120 trap nights (all Shermans) along Walker Creek east of the lake for 11 animals (9.17%); 16 trap nights from one short trapline of 8 tomahawks along the southfacing hillside north of Walker Creek for 2 captures (12.5%).

| Specific Locality | Latitude | Longitude | Habitat |
|-------------------------------------|------------|------------|-------------------------|
| Bohler Creek, 7265 feet | 37.90028 | -119.12977 | aspen riparian and |
| | | | sagebrush desert scrub |
| Gardisky Lake trail, 9900-10,100 ft | 37.95477 | -119.26213 | lodgepole and whitebark |
| | | | pine |
| Saddlebag Lake, 10,150 ft | 37.96321 | -119.27189 | lodgepole and whitebark |
| | | | pine |
| Walker Lake; elevation 2440 m | 37.87123 | -119.1706 | lodgepole pine, aspen |
| | | | riparian |
| Walker Lake trailhead; elevation | 37.870780; | - | Jeffrey pine, mountain |
| 2465 m | | 119.161250 | mahogany, sagebrush |
| Walker Creek; elevation 2234 m | 37.89646; | -119.13046 | aspen riparian |
| Walker Creek (S-facing slope); | 37.89688; | -119.12980 | sagebrush desert scrub |
| elevation 2238 m | | | |

Mammal species present at Williams Butte area, by habitat:

| Family | Species | Habitat | Commonness | Number of localities | Numbers captured |
|--------------|---------------------------|-----------------------|-------------|----------------------------|---------------------|
| Soricidae | Sorex lyelli | stream edge | uncommon | 2 | 5 |
| | Sorex vagrans | stream edge | common | 1 | 7 |
| | Sorex monticolus | stream edge | common | 1 | 2 |
| Sciuridae | Spermophilus lateralis | aspen | common | 2 | 14 |
| | Spermophilus beecheyi | dry meadow, sagebrush | uncommon | 2 | 2 |
| | Tamias amoenus | aspen | very common | 4 | 21 |
| | Tamias minimus | sagebrush | common | 1 | 7 |
| | Tamias speciosus | aspen, Jeffrey pine | common | 2 | 22 |
| Heteromyidae | Perognathus parvus | sagebrush | common | 1 | 4 |
| | Dipodomys panamintinus | sagebrush | uncommon | 1 | 1 |
| Geomyidae | Thomomys talpoides | dry meadow | common | 1 | 1 |
| Cricetidae | Peromyscus maniculatus | sagebrush, aspen | common | 2 | 16 |

| | Neotoma cinerea | Jeffrey pine | uncommon | 1 | 1 |
|-----------|--------------------------|-----------------------|----------|---|----|
| | Onychomys leucogaster | sagebrush | uncommon | 1 | 1 |
| | Lemmiscus curtatus | sagebrush | uncommon | 1 | 1 |
| | Microtus longicaudus | stream edge, aspen | common | 3 | 16 |
| Dipodidae | Zapus princeps | stream edge | common | 1 | 8 |

Mammal species present at Gardisky-Saddlebag Lake area, by habitat:

| Family | Species | Habitat | Commonness | Number of localities | Numbers captured |
|-------------|---------------------------|----------------|-------------|----------------------------|------------------|
| Soricidae | Sorex monticolus | conifer forest | uncommon | 1 | 2 |
| Sciuridae | Spermophilus lateralis | conifer forest | Very common | 2 | 17 |
| | Spermophilus beldingi | conifer forest | uncommon | 1 | 1 |
| | Tamias speciosus | conifer forest | uncommon | 2 | 5 |
| | Marmota flaviventris | conifer forest | uncommon | 1 | 1 |
| Cricetidae | Peromyscus maniculatus | conifer forest | uncommon | 2 | 4 |
| | Microtus longicaudus | conifer forest | common | 2 | 7 |
| Ochotonidae | Ochotona princeps | open talus | uncommon | 1 | 1 |

Notes: In general, populations of all species at the high elevations were in low numbers; trap success was poor at both the Gardisky Lake (26 animals in 360 trap nights, or 7.2% success) and Saddlebag Lake (10 animals in 240 trapnights, or 4.16% success), with the exception of the obligate hibernators such as the ground squirrels, Spermophilus beldingi and Spermophilus lateralis. C. Moritz also observed a pika north of Saddlebag Lake.

4. Upper Return Creek, Virginia Canyon, Yosemite National Park, Tuolumne Co., California (22 – 31 July 2005)

Jim Patton, Carol Patton, Kim Tsao, and Les Chow (USGS-Yosemite) hiked in to Upper Return Creek in Virginia Canyon with stock support from the Virginia Lakes Pack Outfitters. The area is not one of the original "Grinnell" sites, but one of three in the

northern part of the Park chosen in consultation with Park and USGS biologists for initial benchmark surveys. The northern third of the Park (basically that part of the Park north of the Tuolumne River) has never been surveyed for terrestrial vertebrates.

A total of 944 'trap nights' based on Sherman live traps, 150 pitfall cup 'trap nights', and 60 Macabee gopher 'trap days' were expended at this locality.

| Specific Locality | Latitude | Longitude | Habitat |
|--|----------|------------|---|
| Upper Return Creek, Virginia Canyon, Yosemite National Park, Tuolumne Co., 9900 ft | 38.06129 | -119.33899 | lodgepole and whitebark pine, willows along creek |

Mammal species present at Upper Return Creek, Virginia Canyon, by habitat:

| | | | Commonness | Number | Numbers |
|-------------|-----------------|--------------|------------|------------------|----------|
| Family | Species | Habitat | | of localities | captured |
| Soricidae | Sorex lyelli | stream edge | rare | 1 | 3 |
| | Sorex | stream edge | common | 1 | 20 |
| | monticolus | | | | |
| | Sorex palustris | stream edge | rare | 1 | 1 |
| | Sorex tenellus | stream edge | rare | 1 | 1 |
| Sciuridae | Spermophilus | open | abundant | 1 | 38 |
| | beldingi | meadows | | | |
| | Spermophilus | open conifer | uncommon | 1 | 1 |
| | lateralis | forest | | | |
| | Tamias alpinus | open conifer | uncommon | 1 | 2 |
| | | forest | | | |
| | Tamias | open conifer | uncommon | 1 | 2 |
| | speciosus | forest | | | |
| Geomyidae | Thomomys | open | common | 1 | 14 |
| | monticola | meadow | | | |
| Cricetidae | Peromyscus | open conifer | uncommon | 1 | 1 |
| | maniculatus | forest | | | |
| | Microtus | open forest, | uncommon | 1 | 3 |
| | longicaudus | stream edge | | | |
| | Phenacomys | open conifer | uncommon | 1 | 3 |
| | intermedius | forest | | | |
| Dipodidae | Zapus princeps | stream edge | common | 1 | 15 |
| Mustelidae | Mustela frenata | gopher | uncommon | 1 | 1 |
| | | burrow | | | |
| Talpidae | Scapanus | | | 1 | * |
| | latimanus | | | | |
| Ochotonidae | Ochotona | | | 1 | ** |
| | princeps | | | | |

Notable findings: Note the occurrence of four species of shrews in this area. Most importantly the single specimen of the Inyo shrew (*Sorex tenellus*) is the first record of this species for Yosemite National Park. Note also the three specimens of the rare arvicoline rodent, the Heather vole *Phenacomys intermedius*, previously known from only about a dozen specimens in California and just a few localities within YNP. Again, rodent densities are very low in general, except for the obligate hibernators, such as the Belding ground squirrel, *Spermophilus beldingi*, and, very interestingly, shrews and pocket gophers, which are active under the snow throughout the winter.

5. Vicinity of Tuolumne Meadows, Yosemite National Park, Tuolumne Co., California (1-4 August 2005)

Jim and Carol Patton trapped at two sites in Tuolumne Meadows where members of the "Grinnell" team had obtained series of Alpine chipmunks in 1915. One of the "Grinnell" camps was at Soda Springs, and we trapped the open granite outcrops and lodgepole pine forest to the immediate north of Soda Springs along the lower reaches of Juniper Ridge. The "Grinnell" team also trapped at the base of Fairview Dome, the exact locality and position relative to the top of the Dome is unclear; we trapped on the western base where there are large exposures of granite in otherwise Canadian zone conifer forest (lodgepole pine, western white pine, red fir, and a few mountain hemlock).

A total of 320 'trap nights' using Sherman live traps was expended at Juniper Ridge and 240 'trap nights' at Fairview Dome.

| Specific Locality | Latitude | Longitude | Habitat |
|---|----------|------------|---|
| Juniper Ridge, Tuolumne Meadows, Yosemite National Park, 8665 feet | 37.88358 | -119.36340 | lodgepole pine forest |
| west base Fairview Dome, Yosemite National Park, 8385 feet | 37.87649 | -119.41609 | lodgepole pine, western white pine, red fir, mountain hemlock forest |

Mammal species present at two localities in Tuolumne Meadows, Yosemite National Park, by habitat:

| Family | Species | Habitat | Commonness | Number of localities | Numbers captured |
|-----------|--------------|------------|------------|----------------------------|------------------|
| Soricidae | Sorex | talus edge | uncommon | 1 | 1 |
| | monticolus | | | | |
| Sciuridae | Spermophilus | open | common | 1 | 1 |

^{*} sight record of fresh mole runway systems

^{**} sight records of animals, fecal piles, hay piles, and vocalizations on two talus slopes, one adjacent to Virginia Pass and the second at the eastern base of Virginia Peak, both in the upper part of the Return Creek basin

| | beldingi | meadows | | | |
|------------|---------------------------|------------------------|-------------|---|----|
| | Spermophilus lateralis | open conifer forest | common | 2 | 5 |
| | Tamias speciosus | conifer forest | very common | 2 | 14 |
| Cricetidae | Peromyscus maniculatus | open conifer forest | uncommon | 1 | 4 |

Note: sign (active burrows) of both moles (*Scapanus latimanus*) and pocket gophers (*Thomomys monticola*) were observed at both the Juniper Ridge and Fairview Dome trap sites.

6. Upper Lyell Canyon, Yosemite National Park, Tuolumne Co., California (10-16 August 2005)

Jim Patton, Carol Patton, and Les Chow worked in upper Lyell Canyon, between elevations of 10,240 and 10,565 feet, at sites we had previously visited in July of 2003 and where Charles Camp and other "Grinnell" team members had visited in July of 1915. The area is near the upper edge of treeline, dominated by whitebark pine, a few lodgepole pine and mountain hemlock, and open meadows with willow thickets along both banks of Lyell Fork.

A total of 720 'trap nights' using Sherman live traps was expended at the combined localities, with 100 pitfall cup 'nights' along Lyell Fork.

| Specific Locality | Latitude | Longitude | Habitat |
|-------------------------------|----------|------------|---|
| upper Lyell Canyon, 10,240 ft | 37.76807 | -119.25506 | whitebark pine, open meadow, talus, stream edge |
| upper Lyell Canyon, 10,565 ft | 37.76358 | -119.25996 | whitebark pine, open meadow, talus, stream edge |

Mammal species present at two localities in upper Lyell Canyon, Yosemite National Park, by habitat:

| Family | Species | Habitat | Commonness | Number of localities | Numbers captured |
|-----------|---------------------|--|-------------|----------------------------|------------------|
| Soricidae | Sorex monticolus | open meadow, talus, stream edge | very common | 1 | 19 |
| | Sorex palustris | stream edge | uncommon | 1 | 2 |
| | Sorex tenellus | stream edge | uncommon | 1 | 1 |
| Sciuridae | Spermophilus | open | common | 2 | 13 |

| | beldingi | meadow | | | |
|-------------|-----------------|--------------|----------|---|---|
| | Spermophilus | open conifer | common | 1 | 5 |
| | lateralis | forest | | | |
| | Tamias alpinus | open conifer | uncommon | 1 | 1 |
| | | forest | | | |
| | Tamias | open conifer | uncommon | 2 | 2 |
| | speciosus | forest | | | |
| Cricetidae | Peromyscus | open conifer | uncommon | 1 | 1 |
| | maniculatus | forest | | | |
| | Microtus | open conifer | common | 2 | 6 |
| | longicaudus | forest | | | |
| | Microtus | stream edge | uncommon | 1 | 1 |
| | montanus | | | | |
| | Phenacomys | open conifer | uncommon | 1 | 2 |
| | intermedius | forest | | | |
| Ochotonidae | Ochotona | talus | uncommon | 1 | 1 |
| | princeps | | | | |
| Mustelidae | Mustela erminea | talus edge | uncommon | 1 | 1 |

Note: marmots were common here; the specimen of the Inyo shrew, *Sorex tenellus*, is the second record of this rare shrew for Yosemite National Park.

7. Dorothy Lake, northeast end Grace Meadows, Yosemite National Park, Tuolumne Co., California (14-23 August 2005)

Chris Conroy, Kim Tsao, Sean Rovito, along with several USGS botanists (Peggy Moore, Holly Wanamaker, Alison Colwell, Dena Grossenbacher) hiked to Dorothy Lake and set up camp on the west shore. This area was not visited by Grinnell or others from MVZ and was intended for baseline data for future surveys in the park. Dorothy Lake is surrounded by rocky ridges, but flanked by moist lodgepole pine forest. Downstream (SW) from the lake is Grace Meadows where the habitat in places is fairly open, but ideal habitat for most animals is probably restricted to near Falls Creek.

A total of 1022 trap nights using Sherman live traps, tomahawks and Victor rat traps was expended at the combined localities to capture 52 specimens (5.1%).

| Specific Locality | Latitude | Longitude | Habitat |
|------------------------------------|-----------|-------------|---------------------------------------|
| Dorothy Lake, 9444 ft | 38.17609 | -119.59468 | willow, lodgepole pine forest |
| Dorothy Lake, 9395 ft | 38.170610 | -119.594600 | stream edge, lodgepole pine forest |
| Dorothy Lake, 9430 ft | 38.16908 | -119.59505 | talus, willows |
| northeastern Grace Meadow, 9060 ft | 38.16254 | -119.60461 | riparian |

Mammal species present at four localities in near Dorothy Lake, Yosemite National Park, by habitat:

| Family | Species | Habitat | Commonness | Number of localities | Numbers captured |
|-------------|--------------------------|--|------------|----------------------------|---------------------|
| Soricidae | Sorex monticolus | open meadow, talus, stream edge | common | 2 | 17 |
| | Sorex palustris | stream edge | common | 2 | 4**** |
| Sciuridae | Spermophilus beldingi | open meadow | common | 2 | 3* |
| | Tamias speciosus | open conifer forest | uncommon | 2 | 6 |
| Cricetidae | Microtus longicaudus | open conifer forest | common | 3 | 11 |
| Dipodidae | Zapus princeps | Riparian | common | 2 | 9** |
| Ochotonidae | Ochotona princeps | talus | common | 1 | 2 |
| Geomyidae | Thomomys monticola | Meadow | Common | 2 | 0**** |

^{*}Many were seen but few captured. They burrowed in very open, rocky habitat near campsite.

note: *Peromyscus maniculatus*, a typically highly abundant species was absent from this locality and was rare in other high elevation sites this year. Sign of pocket gophers, *Thomomys monticola*, was abundant. We also observed pine marten, marmots, black bear, and deer. Chickaree were observed in camp and elsewhere, but were not common. ****Sign of gophers was seen but no specimens were taken.

8. Kerrick Meadow, Yosemite National Park, Tuolumne Co., California (15-22 August 2005)

Adam Leaché and Der-shing Helmer visited this locality primarily to obtain reptiles and amphibians, but trapped for mammals near their campsite. They used 40 Sherman traps and oats as bait. Their trap line was set along a rock outcrop at the center of the northern end of Kerrick Meadow and extended along a small creek. After three nights and two full days of no trapping success, their traps were relocated 0.5 mi. S. of the trail junction between Kerrick Meadow and Buckeye Pass. Their traps were set far apart to cover a lot of area and different habitat types, beginning adjacent to Rancheria Creek, then crossing

^{**}Due to low trap success, Conroy spent time looking for intestinal parasites. Eight of nine *Zapus* were highly impacted with cestodes. These will be sent to the Manter Laboratory at the University of Nebraska, Lincoln. This kind of parasite load has not been observed before during these surveys, though not much effort has been made. ***Capture of four water shrews, *Sorex palustris*, was somewhat unexpected as this brings our total for all three years of survey to only ten.

the trail and moving further west along a rocky slope. They monitored the traps at site number two for three nights. Their mammal observations include *Microtus* spp., *Tamias* spp., *Spermophilus lateralis* and *S. beldingi*. They attempted to capture *S. beldingi* at their campsite by placing a trap from the second trap line at the entrance to some holes with a lot of activity, but they were unsuccessful. They did successfully secure specimens of *T. alpinus* and *S. lateralis*.

Trapline 1: begin: N: 38.11868 W: 119.48073 +/- 20 ft. ~9,400 ft.

end: N: 38.11715 W: 119.48083 +/- 18.5 ft. ~9355 ft.

Trapline 2: begin: N: 38.11087 W: 119.48128 +/- 21 ft. ~9415 ft.

end: N: 38.11387 W: 119.48196 +/- 22 ft. ~9415 ft.

| Specific Locality | Latitude | Longitude | Habitat |
|-------------------------|----------|------------|-----------------------|
| Kerrick Meadow, 9476 ft | 38.11129 | -119.48180 | lodgepole pine forest |
| Kerrick Meadow, 9368 ft | 38.11107 | -119.48164 | lodgepole pine forest |
| Kerrick Meadow, 9509 ft | 38.11332 | -119.48162 | lodgepole pine forest |

Mammal species present at four localities in near Kerrick Meadow, Yosemite National Park, by habitat:

| Family | Species | Habitat | Commonness | Number of localities | Numbers captured |
|-----------|---------------------------|-----------------------|------------|----------------------------|---------------------|
| Sciuridae | Spermophilus lateralis | lodgepole pine forest | common | 2 | 2 |
| | Tamias alpinus | lodgepole pine forest | uncommon | 1 | 1 |

Note: This is the northernmost locality for alpine chipmunk, *Tamias alpinus*, known.