

Field Notes
in
Zoölogy

No. 16

1906 (aug.)

J. Grinnell





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Pasadena, California.

Sept. 21 - 1905.

Saw, or rather, heard, first Intermediate Sparrows on the place this morning.

Mountain Chickadees have been seen about the place the last few days. They are in full song. Also Parkman Wren, & Calif. Shrike.

Oct. 2

Caught behind sign down at Throop: -

1663. Myotis l. longicus ♀ 102 x 48 x 8 fat.

Oct. 12

Have repeatedly seen a partial albino member of a flock of Brewer Blackbirds down at Throop lately. Saw the first Audubon Warblers on the place today.

Oct. 13

Brought in to Throop this afternoon: -

7420 Accipiter cooperi ♂

Oct. 16

Saw the first Ashy Kinglet in 'pepper-tree' down-street this morning.

Oct. 28 - 29

Went on C. O. C. outing trip to Newhall. The hills and "mountains" in the vicinity are almost solidly clothed with greasewood (Adenostoma). Black Walnut (Juglans californica) occurs in low clumps in the lower ravines, and on the foothills immediately around

Newhall, are a great many white oaks (*Quercus engelmannii* (?) and a few live oaks (*Q. agrifolia*). Down the wash towards Saugus & the Santa Clara valley are extensive patches of Sage (*Artemisia tridentata*), and many cottonwoods. About 2 miles below Saugus, 5 below Newhall the water comes to the surface in the Santa Clara River and thick stretches of willow & cottonwood begin. The mistletoe clumps in the cottonwood attract many birds, just as at Victorville, & much the same species. The two days were hot, tho the night was so cold as to be almost frosty.

Saw the following species:-

Valley Quail (Plentiful, tho on account of the high brush no one got the bag limit - 25); Mourning Dove (a great many came into water at night; also feeding in the fields); Western Redtail (3); Sparrow Hawk (few); Red-bellied Hawk (one along river bottom); Pacific Horned Owl (3 flushed); Roadrunner (1); Cabanis Woodpecker (2 in river bottom); Newhall Woodpecker (in willow-bottom and in live oaks in the hills); California Wdpr (several in white oaks around Newhall); Williamson Sapsucker (one seen by Morcom in river bottom); Sierra Sapsucker (1 taken in river bottom, many borings in cottonwoods); Red-shafted Flicker (many in river-bottom); Dusky Poorwill (3 taken in foothills); Killdeer (many along river); Cassin Kingbird (2 along river); Say Phoebe (common);

Black Phoebe (several along river); California
Horned Lark (flocks on pasture); California Jay
(Common in hills); Brewer Blackbird (common
along river); Western Meadowlark (many +
large flocks on pastures); House Finch (flocks);
Willow Goldfinch (very few along the river); Lawrence
Goldfinch (heard in the foothills as well as along
the river); Western Lark Sparrows (Very large flocks
in white oaks, and along roads); Intermediate
Sparrow (few in washes); Bell Sparrow (common in
grease wood on hills); West. Chipping Sparrow (In
white oaks + along river); Brewer Sparrow (several
in sage wash); Sierra Junco (a few in cottonwoods
by river); Thick-billed Fox Sparrow (several under
screw oaks + greasewood on hillsides south of
Newhall, singing loudly early in the morning);
San Diego Song Sparrow (Common in river-bottom);
Spurred Towhee and Anthony Towhee (few of each
in foothills); Western Crow (several, + 1 large
flock in Santa Clara river bottom); American
Raven (Common + generally distributed); Hutton
Vireo (a few in the live oaks in the hill
canyons); Calif. Shrike (fairly common along pastures);
Audubon Warbler (Commonest in cottonwoods);
Am. Pipit (flocks along river); Mockingbird
(2 in peppertrees in Newhall); Rock Wren (several
in sage washes); San Diego Wren (common
in hills); Parkman Wren (few in sage, and
along river); Slender-billed Nuthatch (several

in white oaks, & in cottonwoods along river);
Wren tit (few in hills); Calif. Bush-tit (1 flock among
hills); Plain Titmouse (pair in cottonwoods of
river bottom); Western Gnatcatcher (common in sage
washes); Dwarf Hermit Thrush (one in ravine
in hills); Mountain Bluebird (large scattering
flocks on stubble-fields + pastures); Western
Bluebird (many in cottonwoods along river);
Paradise Thrasher (few in hills, but quiet).

- 7421 Black Phoebe ♂
7422 Rock Wren ♂
7423 Ashy Kinglet ♂
7424 Valley Partridge ♂
7425 Western Meadowlark ♀ im.
7426 Dusky Poor-will ♂
7427 Plain Titmouse ♀
7428 Mountain Bluebird ♀
7429 California Shrike ♀
7430 Nuttall Woodpecker ♂
7431 Sierra Sapsucker ♀
7432 Western Vesper Sparrow ♂
7433 " " " ♂ im.
7434 " " " ♀ im.
7435 " " " ♂
7436 Western Chipping Sparrow ♂ im.
7437 Willow Goldfinch ♀ im.
7438 Thick-billed Sparrow ♂ im.
7439 Bell Sparrow ♀ im.
7440 " " ♂ im.
7441 Western Savanna Sparrow ♂ im.
7442 " " " ♂ im.

Pasadena

Nov. 8

1664 Thomomys ♂ 252 x 78 x 33 fat.

Nov. 22

7443 Whistling Swan ♀ (apparently first winter);
shot by F. R. Harris on the "Pacific Gun Club"
grounds near Newport Beach, between that
and Huntington Beach. Measurements—length
1243 mm.; stretch 2040; wing 520; tail 175; weight
11 lbs.

Nov. 30

Spent the day at Glendora, walking up
onto the foothills toward Sycamore Flats. Saw:—
Western Robin (one in orange orchard); Dwarf Hermit
Thrush (only 2 or 3 heard); Audubon Warbler (the
most abundant species); Parkman Wren (several);
Pasadena Thrasher (one heard); Mockingbird (several
in Big Dalton Wash & in town); Western Lark
Sparrow (one small flock); Golden-crowned and
Intermediate Sparrows (both fairly numerous in
foothills); Anthony Towhee (common); Red-shafted
Flicker (common); Sparrowhawk (3); California
Shrike (2); Anasa Hummer (several around
Nicotianas); Ruby-crowned Kinglet (1); Western
Meadowlark (few); Valley Quail (quite numerous
in the foothills); Say Phoebe (2 on foothills, one in
pursuit of a sparrowhawk); California Jay (few
in Big Dalton Wash); House Finch (few);
Willow & Arkansas Goldfinches (both common in

sunflower patches and in sycamores); Sierra Junco (few on foothills); Wren-tit (few) — only 24 species, but then I wasn't paying particular attention to birds!

7444 Valley Quail ♂
7445 " " ♂
7446 " " ♀
7447 Rufous-crowned Sparrow ♂
7448 " " " ♀

Dec. 23

Went up the Arroyo Seco Canyon to the "Dutch Oven". The day was clear, but very frosty, there being ice all day in the shade. A recent severe north wind has swept down the canyon bowling over many large cottonwoods and alders, and even wrenching oak trees from the rocks on the canyon sides. Birds were not abundant (as usual in winter), being only noticeable in warm nooks where Audubon Warblers, Kinglets + Chickadees congregated; ~~saw:~~

Hermit Thrush (about a dozen seen); Solitaire (Taylor shot one near Dark Canyon); Ashy Kinglet (fairly common, all being cinerascens); Mountain Chickadee (several, down nearly to Las Casitas); Sierra Creeper (one near "Dutch Oven", in golden oaks & spruces); Wren-tit (common in brush, as usual); San Diego Wren (few); Paradise Thrasher (only one or two heard low in the canyon); Dotted Canyon Wren (2 heard); Audubon Warbler (abundant); Dusky Warbler (2 shot below Las Casitas in live-oaks);

Hutton Vireo (several); Spurred and Anthony
Joublers (common towards mouth of canyon);
Fox Sparrows (fairly common; 8 specimens shot
are apparently of three subspecies — megarhyncha,
meruloides, and insularis !); Rufous-crowned
Sparrow (Taylor shot one near Barker's old place);
California Purple Finch (17 shot near mouth);
Willow Goldfinch (heard among alders); California
Jay (few; no other species); Anna Hummer (several);
Cabanis & Nuttall Woodpeckers (few of each);
Red-shafted Flicker (several); Cooper Hawk (1);
Mountain Quail (3 small flocks); Say Phoebe (1)
— Total 28 species, in the Canyon.

- 7449 Ashy Kinglet ♀
7450 " " ♀
7451 " " ♀
7452 " " ♂
7453 " " ♂
7454 " " ♂
7455 Hutton Vireo ♂ in ("windows" in skull)
7456 Dusky Warbler ♀
7457 San Diego Wren ♂
7458 Mountain Chickadee ♂
7459 Wren-tit ♂
7460 Calif. Purple Finch ♀
7461 Dwarf Hermit Thrush ♂
7462 " " " ♂
7463 " " " ♂
7464 Thick-billed Fox Sparrow ♂
7465 Radiak Fox Sparrow ♂ in.

7466 Kadiak Fox Sparrow ♂ im.

7467 " " " ♀ im.

Dec. 25

Along railroad to Glendora today, saw near Santa Anita a large flock of doves.

Dixon shot at El Monte: —

7468 Dwarf Hermit Thrush ♂

7469 Nuttall Woodpecker ♂

7470 Say Phoebe ♀

7471 Black Phoebe ♀

7472 Western Meadowlark ♂

7473 " " ♂

7474 California Shrike ♂

7475 House Finch ♂

Jan. 2, 1906

Down at Eastlake Park, Los Angeles, this morning, I saw a single Pied-billed Grebe, several pairs of Coots, 2 Tule Yellowthroats, several song sparrows, a flock of 13 Cedar Waxwings, large flock of Brewer Blackbirds, 2 or 3 Anthony Towhees, 1 Dwarf Hermit Thrush, and many Audubon Warblers; all in the Park.

Jan. 5

Went up the arroyo into the Canyon a little above the quarry this afternoon. In the bottom above Devil's Gate every single bush of sumach (Rhus laurina) is dead or dying, the leaves curled & yellow & the stems brittle;

This is the case well up into the canyon mouth, but up on the sides of the mountain the plant is normal. No other species is affected similarly & I don't know how to account for it.

Among birds, there is a remarkable scarcity of some species; for instance Intermediate Sparrows are altogether wanting where in usual years they are plentiful. Today I saw none anywhere, even here in town, or on the home place, but thought I heard one in a cypress at dusk on the way down Lincoln Ave.

Saw and secured two Golden-crowned Sparrows in the Canyon above the quarry; also in the Canyon:— Nuttall Woodpecker⁽²⁾; Red-shafted Flicker (3); Audubon Warbler (perhaps 50 all together); Ashy Kinglet (about 10); Dwarf Hermit Thrush (6); Wren-tit (about 12); San Diego Wren (2); Out in the wash saw: Shrike (2); Mockingbird (1); Calif. Thrasher (1 heard); Mourning Dove (very large flocks feeding in brush on ground after sundown, fully 200 all together); Spurred Towhee (2); Anthony Towhee (perhaps 30); Ashy Kinglet (2); Audubon Warbler (about 20); Parkman Wren (1); Valley Quail (heard). On mesa near Devil's Gate saw & heard in full song, a scattering flock of Meadowlarks. Birds scarce in species, & in individuals, save for Towhees & Audubon Warblers.

- 7476 Ashy Kinglet ♂
 7477 " " ♂
 7478 " " ♀
 7479 " " ♀
 7480 Audubon Warbler ♂
 7481 Wren-tit ♂
 7482 " ♀
 7483 " ♀
 7484 Dwarf Hermit Thrush ♂
 7485 Golden-crowned Sparrow ♀
 7486 " " " ♀

Jan. 9.

Mr. T. J. Ashby brought me, picked up dead at Playa del Rey this morning:—

- 7487 Pacific Kittiwake ♀

Jan. 20.

Went on a Physiography trip down to Pt. Fermin. Saw large numbers of White-throated Swifts flying back and forth along the cliffs; Burrowing Owl, Rock Wren, Intermediate Sparrow, Western Meadowlark and House Finch on the hills back of San Pedro; also back in the suburbs of the town several California Gulls flying back and forth over the same fields with Sparrow Hawks. Out in the surf and beyond saw Heermann and Western Gulls, Brandt and Farallone Cormorants and a very few Pelicans (Calif. Brown).

Feb. 2

In ravine across the Linda Vista bridge this morning about 9 o'clock I saw a full-plumaged ♂ Rufous Hummingbird. Got within 20 feet of it, as it perched on a dead twig, & saw its plain rufous back plainly. The red-flowered currant bushes are attracting lots of noisy Anna hummers into the hills. Saw or heard also:- hermit thrushes, Fox and golden-crowned sparrows ("oh, dear me" song of the latter), spurred and brown towhees, thrasher, San Diego wren, wren-tit, etc.

Feb. 3

Went out to Glendora today. Saw 7 cedar waxwings and a number of robins about the pepper trees in town. Also one phainopepla at the Wood place, and heard notes of others.

Feb. 5

1665 Lasiusna cinereus ♀ 138 x 58 x 10

Feb. 17

Went on a Physiography trip to San Pedro. Saw out near P.T. Fermín 2 or 3 white-throated swifts, a pair of burrowing owls, many meadowlarks in full song and the other common birds of the coast and vicinity.

Feb. 19

Went down to arroyo near Linda Vista bridge at 8 o'clock this morning, and saw two Nuttall Woodpeckers, a rufous-crowned

sparrow in full song (resembling that of Lozuli bunting in some respects); golden-crowned sparrow (song); lutescent (or dusky) Warbler, etc.

Feb. 24

Went down to San Pedro and out to Pt. Fermin today. Among land-birds, saw:— House Finch, Anna Hummer, Say Phoebe, Willow Goldfinch, Am. Pipit, West Meadowlark, Intermediate Sparrow, Am. Sparrowhawk, Burrowing Owl, Parkman Wren, Rock Wren, Audubon Warbler, white-throated Swift, Brewer Blackbird, + Red-winged Blackbird. Among water-birds:— Cal. Brown Pelican (6); Brandt Cormorant, Western Gull, Herring Gull (2 adults flying close along bluff positively identified—pale mantles + black-tipped primaries); Glaucous-winged Gull (2 adults, plain pale pearl-gray mantles); Spotted Sandpiper (several along rocky shore at surf line); Black Turnstone (at least two flocks of 10 to 20 along rocky beach just beyond the lighthouse, feeding at edge of surf, and flying out and around me in a dense flock with metallic cries, the flock shot into over the surf returning within range, so that all might have been secured without trouble).

- 7488 Black Turnstone ♂
 7489 " " ♂
 7490 " " ♂
 7491 " " ♂
 7492 " " ♂
 7493 " " ♂
 7494 Spotted Sandpiper ♂

March 3

Went over into hills west of the Linda Vista bridge an hour or so this afternoon. There are a great many hummers around the blossoming currants; saw several rufous besides the one shot, as well as other allens and annas.

- 7495 Rufous Hummer ♂
 7496 Allen Hummer ♂
 7497 " " ♂
 7498 " " ♂
 7499 Anna Hummer ♂

March 4

Saw several Violet-green Swallows flying west over North Pasadena late this afternoon. There are quite a few robins and cedar-birds about now, some in the pepper trees along the streets. A song sparrows' nest in pampas grass on the home place is full of young about 2 days old.

March 10, 1906

Went up Eaton Canyon today with Finley and Walter Taylor, and located the Condor's nest. It held one egg which we were careful not to disturb. Altho I got a "sour" smell up the wind from it, there was none of the expected filth about the nest, the egg being laid on a carpet of clean dry oak leaves which had collected from a tree close above. The nest was on an extremely steep (tho remarkably accessible) wall of the canyon not more than 200 feet above its bed. It was under an overhanging mass of rock and further protected by a slab of rock leaning up against the main mass, thus constituting a perfect shelter from wind, rain, or falling debris from the cliff above. A yucca grew a yard to one side and a small golden oak over-hung the site a few yards above. — We found the nest only about 200 yards from where I saw the young one last spring. When we first got there we perched on the narrow trail on the opposite cliff & scanned the north face with a field-glass for a long time. We took note of several "white-washed" ledges, on which I saw the old birds roosting last year. Finley staid on the trail as a lookout, and Taylor & I descended

into the canyon & worked our way up the opposite side to each of the whitewashed ledges, but with no further clue, & no condor as yet to be seen. We were a little above the level of Finley on the trail opposite, & barely within shouting distance, and there we again waited in vain for sometime. Then I remembered that Finley had brought along a sawed-off revolver, & I yelled for him to fire it off. He did so, and shortly after the third report, Taylor excitedly called attention to a condor which made its appearance far below, partly clambering, partly flying up a ridge. It soon found a stable foothold, & proceeded to quietly preen itself, picking over its breast feathers, & stretching out its wings alternately, to our great interest. After some minutes it showed signs of restlessness, and after spreading its wings, and moving about on the ledge, it took wing across to another ledge. And soon it flew again, going from perch to perch, and circling close down toward the canyon bed. Finally it lit on a dead spruce stub just protruding above a bulge in the canyon side from us, and presently dropped down out of sight. We saw no more of the bird until she was

finally flushed from the nest. Meanwhile Finley had gone down into the canyon; then I went, leaving Taylor who stayed on watch a half hour longer, to see if the bird was scared out by the movements of the other two of us. But she evidently sat very close, for we afterward found that we had crossed above and below her within less than 100 yards. After lunch, Finley took a conspicuous point on the south canyon wall for a lookout, and I started up toward the stub where we had last seen the condor, Taylor trying another route. I went up a slide, and suddenly got a sour smell, the wind direction indicating its origin over towards the stub. So I worked along in that direction, until I could see the whole face of the wall, and then yelled for Finley to fire his revolver. After the third report, the condor bowed up just about 20 feet above me, & perched quietly on a rock at the mouth of what soon proved to be the nest cavity. I backed down a bit, until Finley & Taylor could come to where I was. The bird finally flew up out the stub before-mentioned, & we had all kinds of views of her. After exploring for the best route

to follow in reaching the nest, & best places to plant cameras for the bird in flight, we left, the bird soon returning.

Other birds ~~seen~~ in Eaton Canyon were Cal. Purple Finch (singing loudly), Am. Dipper, Interscent Warbler (in full song), White-throated Swift, Golden Eagle, Dotted Canyon Wren, etc.

March 15.

A single ♂ Ariz. Hooded Oriole on place this morning at 7 o'clock.

Finley phoned tonight that he tried to get up to Condor's nest today, but found the water too high (from Monday's rains), and it was also densely cloudy & misting all day.

March 24

San Gabriel Expedition.

This forenoon came to mouth of Fish Canyon in the San Gabriel Wash 3 miles east of Duarte.

Raining drenchingly all day, so made a "wet" camp. There is a large stream issuing from Fish Canyon, and the San Gabriel River is a huge rapid, so that we could go no further in any direction even if we wanted to.

In spite of the rain a few birds are to be seen - a flock of violet-green swallows twittering high up in the fog; a dwarf hermit thrush calling (good weather for him!) a few audubon warblers, & a Kinglet (Aby) in full song.

March 25.

7500 Black-tailed Gnatcatcher ♂

7501 Bush-tit ♂

7502 Rufous-crowned Sparrow ♂

Rained most of the night and this morning, partially clearing in the afternoon, enough to dry things out. Saw following birds:-

Cassin Vireo (1 at very close range, so that identity was certain); Calif. Shrike (1); Linnet (few); Poor-will (2 at dusk, one flitting about blossoming branches at top of eucalyptis, catching insects attracted to flowers); Western Flycatcher (1 shot by Taylor); Lutescent Warbler (several); Audubon Warbler (most abundant bird, in moult); San Diego Wren (few); Parkman Wren (several in full song); Canyon Wren (several in full song); Rock Wren (1); Cactus Wren (a pair); Bush tit (several); Pasadena Thrasher (1 singing); Black-tailed Gnatcatcher (1); Western Gnatcatcher (common); Turkey Vulture (Great flocks circling overhead); Sparrowhawk (1); Dwarf Hermit Thrush (few); Black Phoebe (pair); Wren-tit (common)

March 26

Rained hard all night and this morning, so that everything is soaked. Now (11 am) clearing up with a west wind. The boys put out about 100 traps last night and took the following within half a mile of camp:

Peromyscus gambeli (commonest mammal, about 15 taken); Peromyscus fraterculus (3 taken); Peromyscus californicus insignis (1 taken); Reithrodontomys longicauda (5 taken); Perodipus agilis (1 taken); Perognathus californicus dispar (3 taken); Neotoma fuscipes macrotis (1 taken); Spilogale phenax (1 taken); Lepus cinerascens (1 trapped and 1 shot); Lepus auduboni (several shot).

Heard a black-chinned sparrow sing several times this morning; also several rufous-crowned sparrows (song of this bird very much like that of Lazuli bunting, tho a little less loud & less accented); found a cactus wren's nest 2 feet up in opuntia cactus, with 3 small young.

1666 Perognathus c. dispar ♂

1667 Peromyscus fraterculus ♀

7503 Western Gnatcatcher ♀

7504 Wren-Tit ♂

1668 Scapanus californicus ♂ (Pasadena, Mar. 25)

March 27

7505 Allen Hummer ♀ (Glendora)

7506 Western Wesper Sparrow ♀ "

7507 Lawrence Goldfinch ♂ "

7508 House Finch ♂

7509 Red-shafted Flicker ♀

Went down to the S.F. railroad bridge, crossing that to the eastward. In the wash saw several cactus wrens, black-tailed Gnatcatcher, shrike, mockingbird, Turkey Vulture, Golden-crowned Sparrow, Intermediate Sparrow, etc.

March 28

- 7510 Rufous-crowned Sparrow ♀
7511 " " ♀
7512 Least Vireo ♂
7513 " " ♂
1669 Peromyscus fraterculus ♂

Several Least Vireos and Ariz. Hooded Orioles have appeared around camp. The weather has become clear and very warm so that bird-life is more in evidence. Large flocks of white Pelicans are often seen circling up over the mountains.

March 29

Among mammals, several ground squirrels have been taken, jack rabbits seen, and many more Perognathus; Peromyscus gambeli, fraterculus & insignis; Perodipus, Neotoma f. macrota, Reithrodontomys, & one more Spilogale taken.

- 7514 Anthony Towhee ♂
7515 " " ♀
7516 " " ♂

March 30.

Saw today Bullock Oriole (several); 1 black-headed grosbeak; 1 phainopepla; a flock of cedarbirds in pepper-trees near Azusa; Lawrence goldfinches in orange-trees; Arizona hooded oriole (many); Violet-green swallows; etc.; West. Warbling Vireo (1).

517 Pasadena Thrasher ♀

518 Audubon Warbler ♂

519 " " ♀

March 31

7520 Bullock Oriole ♂

7521 House Finch ♂

7522 Toluie Warbler ♂

7523 Dwarf Hermit Thrush ♂

This forenoon saw:- Pileolated Warbler (several); Toluie Warbler (2 taken and at least three others seen); Black-throated Gray Warbler (1 taken); Bullock Orioles (common); Black-headed Grosbeak (several); Black-chinned Sparrow (1 singing); Western Lark Sparrow (pair on road).

End of Fish Creek Canyon Trip.

April 9

7524 Least Vireo ♂ Pasadena.

7525 Mockingbird ♂ "

April 12.

Saw two robins in peppertrees near Linda Vista Bridge this morning; one was singing vociferously; there has been one on the place almost continuously up to within a day or two. Yellow Warblers have arrived within two days & are common. also Black-headed Grosbeak, Cliff Swallow, Bullock Oriole, Western Flycatcher, Least Vireo, one Cassin Vireo (in oaks by arroyo pumping house); nest of Anna Hummer under construction.

April 23

Saw, or rather heard, first Wood Pewee at 6:15 a.m.
1670 *Putorius chrysogenys* ♀ (sent by W.B. Donnell
from San Bernardino).

San Bernardino MT. Trip # 2.

June 9 - 1906

Came to Redlands this morning, 8:55-11.02.
Then by stage up Mill Creek to Harvey's, where
we are camped for the night. Arrived here
at 2 P.M., and immediately began exploring
the vicinity. This is in the Golden-oak and
big-cone spruce belt, the streams lined with
fine alders. There are also lots of
sycamores mostly below here, but they
are entirely without leaves, due (as Harvey
says) to a late heavy sleet storm, which
also ruined the apple & cherry crop
here at the ranch. On exposed hillsides
are lots of grease-wood, scrub oak, ceanothus,
yerba Santa, etc. (= Upper Austral). The country
is flower-decked, the late rains & fogs having
retarded the season. Birds are
common, the following species being in
evidence: - Warbling Vireo (many in
full song along the streams); Cassin Vireo
(2 or 3 pairs about the ranch; one nest
and 4 incubated eggs 12 feet up in
alder near stream; another 4 feet up in

golden oak by trail); Calif. Yellow Warbler (very common); Audubon Warbler (nest with three incubated eggs 14 feet up in mistletoe clump about 12 feet out on alder branch near the stream and only about 100 feet from the dining room; Dixon slid down a rope to get the nest; the ♀ was sitting and the tail over the edge of the nest was sufficient identity, tho I finally shot it.); West. Wood Pewee (2 or 3); Ash-throated Flycatcher (2); Black-chin Hummer (a ♂ seen, and a nest 15 feet up on alder branch over stream near dining room, bird sitting); Western Bluebird (pair had a nest in hole in sycamore); Parkman Wren (common; nest with 4 eggs 7 feet up in hole in alder; another with young); Violet-green Swallow (many at dusk); Song Sparrow (several around the cienega below the ranch); Lazuli Bunting (many); Towhees (few); Western Gnatcatcher, Spurred and Anthony Towhees, Wren-tit, San Diego Wren, Rock Wren (several of each); Black Phoebe (pair by dining house).

June 10

Left Harvey's at 6 a.m. with horses + pack train + made up Mountain Home Creek (canyon) over the divide to 7-oaks; then on up the Santa Ana to the mouth of South Fork

where we pitched permanent camp at 12:30 P.M. Up Mountain Home Canyon

there is first a dense growth of alder, big-cone spruce & golden oak. Here on a golden oak branch hanging 15 feet up over the trail, we took the second set of Cassin Vires $2\frac{3}{4}$, incubation perhaps $\frac{1}{4}$.

Further up, sugar pine, silver fir, black oak and yellow & Jeffrey pines become numerous, the latter particularly around Glen Martin. There I saw several

California Woodpeckers, White-headed Wdpe, Blue-fronted Jay, Cassin Purple Finch, W.C.T. Chickadee, Sierra Junco, Slender-billed Nuthatch.

A little lower in the Canyon among the shady alders were many Western Flycatchers, and in the golden oaks up the sides of the Canyon several Black-throated Gray Warblers. At

Mountain Home, we all saw very unquestionably a sharp-shinned Hawk, mobbed by blue-fronted jays.

Here at South Fork Camp I found & Dixon climbed late this evening by means of rope, an Audubon Warbler's nest. This was 25 feet up on a lower branch of a yellow pine, about 5 feet out from the trunk; no branches before. Set $2\frac{3}{4}$, incubated about $\frac{1}{4}$.

7526 Audubon Warbler ♀ (with set $\frac{1}{3}$, shot at
Harvey's, June 9)

June 11

7527 Calliope Hummer ♀ (with set $\frac{2}{2}$)

7528 " " ♀ (with set $\frac{1}{2}$)

7529 Sierra Creeper ♀ (with set $\frac{1}{5}$)

1671 Microtus ♀

Today went up Fish Creek canyon, collecting
only in the lower portion. Found two Gray
Flycatcher's nests, one just completed & the
other with one egg. Found two fresh sets
of Sierra Creeper's eggs ($\frac{1}{5}$ $\frac{2}{4}$). One nest ($\frac{1}{5}$)
& set up behind loosened bark of incense
cedar, composed basally of $\frac{1}{4}$ -to $\frac{1}{2}$ -inch strips
of inside cedar bark, and internally of soft
weathered inner willow-bark fibers, ^{with a few feathers felted in.} The
bird was flushed as Dixon passed. The
other set $\frac{2}{4}$, was located ^{10 feet up} behind loosened
bark of small dead & rotten silver fir.
A creeper was heard singing, but did
not come around; this set possibly
incomplete. This was when I found a
family of nearly full-grown young last
year; & we found the old nests (3 of
them one above the other behind a
loosened strip of bark 8 feet up on a
nearby cedar. Another creeper's nest was
found about 8 feet up behind bark of
a cedar, & held three young & one infertile egg.

Two nests of Calliope Hummer were secured each containing two eggs, fresh or nearly so. Both were discovered by watching the birds fly to them. One bird was pugnaciously assailing an Audubon Warbler which ventured into the nest tree. One nest ($\frac{1}{2}$) was 20 feet up on a living drooping fir branch beneath quite dense foliage; the other ($\frac{2}{2}$) was 25 feet up on a dead branch of a sickly fir, living near the top.

Saw also in Fish Canyon, one Water Ouzel, one Western Red-tail, or Pierra Sapsucker; heard siskins and one Ashy Kinglet in full song. Dixon found a set of Junco ($\frac{1}{4}$), slightly incubated; nest under a projecting rock on side of gully in Lost Creek canyon.

Found a Microtus nest under the end of a log only about 5 feet from the main stream in a clover border. The nest was globular, of fine dried grass blades, and contained three newly-born young, eyes still firmly closed; the ♀ ran out & was killed before the young were discovered; there was a conspicuous system of runways thru the clover on the surface down to the water's edge, but the mouse refused to run into the stream.

June 12

7530 Sierra Hermit Thrush ♀

7531 Pygmy Nuthatch ♂ (with set $\frac{1}{4}$)

Today we followed up South Fork quite a ways possibly as high as 7500 feet and then, climbing the west bank, came back across the "flats". In the canyon found a Sierra Thrush's nest 6 feet up in a young incense cedar with 5 badly incubated eggs. The bird had left before we found the nest and we never saw her at all. The nest tree was on the floor of the canyon about 50 feet from the stream in a shaded bend. Another nest containing 4 newly-hatched young was 5 feet up in a very young fir growing 100 feet up on the side of the canyon. The bird was on the nest, and staid around, being ^{inadvertantly} shot before the nest contents was determined. A

Juncos's nest ($\frac{2}{4}$) was taken from a cavity under a tuft of grass or sod, in a bank on the side of a trail, the bird being flushed from almost under my feet. Another

Calliope Hummer's nest, with one large young, was climbed to, 40 feet up in a yellow pine, built as usual.

On the flat to the west of South Fork, a slightly incubated set of 7 Pygmy Nuthatch's eggs was taken from a hole dug in a rotten pine stub 8 feet up; two blows with the hatchet on the stump brought

out the bird, which disappeared. After a while what proved to be the ♂ made his appearance with a large insect in his bill, an evidence that the ♂ feeds the ♀ on the nest. The nest was a felted mass of plant down & fur. Two Gray Flycatchers' nests were found just building.

This afternoon Jim Dixon found a Robin's nest 6 feet up in a young cedar, with three badly-incubated eggs.

June 13

Today we went up onto the flats west of South Fork, & went down to the Santa Ana, & back up the latter to camp. Birds were not common on the flats. Saw one White-headed Wdphr, two Sparrow Hawks, W. Bluebirds' nests, one with 3 fresh eggs and others with young; Wt. Chickadee nest with 5 large young (parent was not in the least prevented from uttering unmuffled the usual "chickadee", by a mouthful of insects!); Red-shafted Flicker (1); Western Chipping Sparrow (several); Mountain Quail (1 pair). Down along the Santa Ana Fork a set (3/4) of Cassin Vireo 12 feet up in smallish incense cedar (♂ was singing loudly while on the nest!). Also found a creepers

nest 7 feet up behind bark in crotch of
huge incense cedar; young large enough
to clamber up the trunk out of reach.

Western Wood Pewee just building a nest.

Dixon took a set of three fresh Tanager's eggs this
evening in Tilt Creek canyon from a nest
30 feet up, in a silver fir.

June 14-15

Went up thru So. Fork Cienegas to Dry Lake and
vicinity staying over night at the Lake, where
there is yet a great deal of snow in drifts.

Dixon took a set of four fresh eggs of Audubon
Warbler from the nest at end of drooping Murray
Pine limb 12 feet up. This species was common
and in full song. I saw a ♀ carrying nesting
material up into a tall Murray Pine. A

set of 4 incubated eggs of Western Chipping Sparrow
was taken from a typically built nest located
14 feet up in ~~the~~ tuft of needles towards the end
of a Murray Pine branch. This species is
common all the way from 7-oaks up to
timber-line on Grayback. Took a set (15th)

of 5 somewhat incubated eggs of Mountain Chickadee
from an old woodpecker's hole 20 feet up in
dead Murray Pine. Lots of other nests
with young. Found a Williamson

Sapsucker nest, 20 feet up in dead Murray
Pine; a chorus of squeals indicated the contents.

Found also, 3 Gray Flycatcher nests, one

of Olive-sided Flycatcher, and 2 of Cassin
Purple Finch. close around the lake, all
in course of construction. A young
Western Robin was around, well able to
fly. Two Western Red-tails, evidently
after yellow-headed chipmunks. Several
White-throated Swifts flying over lake, and
in the evening Pacific Nighthawks with their
usual notes. Also saw a Golden Eagle,
which, alighting on a dead limb of a
pine at margin of lake, snapped it
off by its weight, and sent it crashing
to the ground; Cabanis Woodpecker; lots
of Pine Siskins in full song and very
active, but no signs of nests; I thought
I heard flying over several times
crossbills, but failed to get conclusive
evidence; Wood pewees were common;
heard a few nutcrackers as usual;
Sierra Hermit Thrushes and Soletaires,
the latter circling on tremulous wings high
over head, were both in full song, but
I imagine nest only in the canyons
far below; saw one Calliope Hummer,
a few Juncos, 1 Creeper, several pairs
of Slender-billed Nuthatches (one nest with
large young 18 feet up in sapsucker hole
in dead pine); one or two Green-tailed
Towhees + Stephens Fox Sparrows in chinquapin
and manzanita thickets on mt.-sides.

The afternoon of the 15th, I went up from So. Fork Ciemeza to Dollar Lake, southwestward. The lake basin was half full of snow, & there were great drifts & slides all about. Saw thereabouts a few Fox Sparrows, Chickadees, Audubon Warblers, & Gray Flycatchers. Down thru the So. Fork (or "Big Horse") Ciemezas, saw:

Lincoln Sparrows (in full song), Blue-fronted Jay, Sierra Hermit Thrush, Sierra Creeper, Western Bluebird (nests with young), Olive-sided Flycatcher, Western Robin (fairly common, more so, I think, than last year), etc.

1672 Vespertilio fuscus ♂ { shot at So. Fork camp,
1673 " " ♂ } evening of 15th.

June 16. (Saturday)

Went up Fish Creek Canyon again this morning.

7532 Calliope Hummer ♀ (with set $\frac{3}{2}$)

7533 Gray Flycatcher ♀ (with set $\frac{1}{4}$)

7534 " " ♀ (with set $\frac{2}{4}$)

Calliope Hummer (set $\frac{3}{2}$) I found on the canyon side beneath an overhanging boulder only 15 inches from its face where it sloped back at the back, and 22 inches from the ground directly beneath the nest. The latter was built on a drooping branchlet of a young fir which darkly shaded it above (on the side not occupied by the rock). Incubation about $\frac{1}{3}$.

I took a set of Gray Flycatcher ($\frac{1}{4}$) fresh 5 feet up in crotch of dead willow stalk; and

another set ($\frac{2}{4}$), incubation advanced $2\frac{1}{2}$ feet up in very young incense cedar growing on canyon side on opposite side of boulder from ~~the~~ the Calliope's nest. Dixon took Cassin Vireo ($\frac{4}{4}$) nearly fresh $2\frac{1}{2}$ feet up on outer branch of cottonwood in Lost Creek Canyon; also ($\frac{5}{3}$), incubation well begun 8 feet up on end of Jeffrey pine branch over trail; also Western Warbling Vireo ($\frac{1}{3}$) fresh, nest 35 feet up at outer end of branch of incense cedar; latter two along Santa Ana.

June 17

Dixon took Gray Flycatcher ($\frac{3}{4}$), fresh, from small fir $2\frac{1}{2}$ feet up growing in Fish Creek Canyon bottom only 10 feet from stream. He also found a Calliope Hummer's nest 50 feet up on dead pine, with two eggs nearly hatched; and another hummer's nest 70 feet up in dead (wholly) fir, but unreachable.

June 23

This afternoon, coming up Mountain Home Canyon, we found a Western Flycatcher's nest with 4 somewhatly incubated eggs. It was 6 feet up supported against the trunk of a dead alder by an out-turned slab of bark in the usual style; being close by the trail the bird flushed as our horses passed.

June 24

at 7 oaks: - a linnet's nest on the end of a log over the front door of the "parlor" log cabin with eggs. Watched a Sierra sapsucker boring in branches of alder; working at same place for fully $1\frac{1}{2}$ hrs.; then a Calif. Woodpecker which had been apparently watching all the while from a perch on a tall dead pine nearby, flew down driving off the sapsucker, and going the rounds himself "sipping" at the borings!

Notes on Eggs Collected by Jim.

Gray Flycatcher

Set $\frac{4}{4}$; Inc., slight, nest 4 feet up in Manzanita (a. patula) in Fish Canyon, 6600 ft.; nest when contained one egg a substantial affair as usual, but as set was deposited material was robbed from nest (presumably), until when set was full, the nest was a very flimsy affair. June 21.

Set $\frac{5}{4}$; fresh (one egg sparsely spotted); June 23; by trail up South Fork, 7000 ft.; nest 10 ft. up in black oak against trunk supported by emanating branch.

Set $\frac{6}{4}$; inc. advanced; Dry Lake, 9000 ft.; June 23; nest 12 feet up up in Murray pine resting on two limbs where they happened to cross; with ♀

Set $\frac{7}{4}$; Inc. well begun; Dry Lake, 9000 ft.; June 23; nest 15 ft. up in Murray Pine on top of thick bunch of needles and small limbs.

Set $\frac{2}{3}$, fresh; Dry Lake June 26; nest 6 ft. up at end of drooping branch of Murray Pine; with ♀
Cassin Purple Finch

Set $\frac{1}{4}$; Inc. advanced; Dry Lake, June 23; nest 50 ft. up on end of limb of Murray pine.

Set $\frac{2}{4}$; fresh (just 8 days before this nest was just barely begun); Dry Lake, June 23; nest 15 feet up on bushy end of limb of Murray Pine; both ♂ + ♀ taken & preserved.

Set $\frac{3}{4}$; Inc. far advanced; ♀ shot; Dry Lake, June 26; nest 45 feet up at tip of limb near top of Murray pine (only about 50 feet - nest tree to $\frac{2}{3}$).

Williamson Sapsucker

One rotten egg taken from hole 20 feet up in "half" dead Murray Pine, with 5 $\frac{2}{3}$ -grown young; Dry Lake, June 26.

Olive-sided Flycatcher

Set $\frac{1}{3}$; Inc. well begun; Dry Lake, 9000 ft.; June 23; ♀ with set; nest on drooping limb of Murray Pine 20 feet up and over steep bank of creek; parent seen scrapping with purple finches in vicinity 8 days before & so nest discovered.

Sierra Junco

Set $\frac{3}{4}$, Inc. commenced; So. Fork Ciuega 8000 ft., June 23; nest in a bunch of grass close to trail in meadow; found building 8 days before.

Cassin Vireo

Set $\frac{6}{4}$ c; Fish Creek 6600 ft., June 18; fresh; nest 10 ft. up in pine sapling.

Warbling Vireo

Set $\frac{2}{3}$, Inc. advanced; Santa Ana 6000 ft.; June 22;
20 feet up at end of drooping branch of balu-o'-
gilead.

Set $\frac{3}{4}$ Inc. advanced; Santa Ana 6200 ft.;
June 20; nest 20 ft up on perpendicular
branch of cottonwood (= "balu-o'-gilead").

Set $\frac{4}{4}$, Inc. very slight; Santa Ana 6000 ft.;
June 20; nest 20 ft up at end of small
cottonwood limb.

Set $\frac{5}{4}$, Inc. advanced; Santa Ana 6300 ft.;
June 25; nest 20 feet up in cottonwood.

Western Wood Pewee

Set $\frac{1}{3}$, Inc. slight; Santa Ana 5800 ft.; June 18;
nest 12 ft. up on pine limb over road.

Set $\frac{2}{3}$, Inc. slight; Fish Creek 6500 ft.; June
18; nest 15 feet up on top of cedar limb.

Set $\frac{3}{3}$, Inc. slight; Santa Ana 6300 ft.; June
24; nest 15 feet up near end of small pine
limb near creek.

Townsend Solitaire

Set $\frac{3}{4}$, Inc. advanced; Santa Ana, 6000 ft.; June 22;
Nest on dirt bank and held in place by tangle of
roots; made of sticks twigs & bark, lining of
fine dry grasses; close to stream; so fragile
as to fall to pieces when picked up.

Set $\frac{4}{4}$ Inc. fresh; Santa Ana, 6400 ft.; June 24;
nest beside a young fir and protected by an
overhanging rock; on steep hillside; made outwardly
of stick & twigs, lined with dry grass; straggling down.

- 7535 Olive-sided Flycatcher ♀ (with set $\frac{1}{3}$) Dry Lake June 23
 7536 Gray Flycatcher ♀ (with set $\frac{6}{4}$) " " "
 7537 Cassin Purple Finch ♀ (with set $\frac{2}{4}$) " " "
 7538 " " " ♂ " " " "
 1674 Vespertilio ♂ So. Fork, 6200 ft.; June 24.

June 25

- 7539 Sierra Hermit Thrush ♀ (with set $\frac{2}{4}$) So. Fork, 6300 ft.

This evening about a quarter of a mile up South Fork found a Sierra Hermit Thrush nest & took the ♀ parent; the four eggs were incubated perhaps one-third; the bird was sitting & almost touched before she left the nest; nest 3 feet up in inter-crossing branches of young pine & young fir which grew about 10 inches apart; in canyon bottom 50 feet from stream, shaded by alders.

June 26

- 7540 Gray Flycatcher ♀ (with set $\frac{8}{3}$) Dry Lake, 9000 ft.
 7541 Cassin Purple Finch ♀ (with set $\frac{3}{4}$) " " "

June 29

- 7542 Sierra Creeper ♀ Fish Cr. - 6600 ft.
 7543 Cassin Vireo ♀ " " 6500 ft. (with set $\frac{7}{4}$)
 7544 " " ♂ " " " " "
 7545 Sierra Hermit Thrush ♂ juv. " " 6600 ft.
 7546 Am. Dipper ♀ juv. Santa Ana - 6400 ft.
 7547 Cabanis Woodpecker ♀ " " 6200 ft.

June 30

- 7548 Calliope Hummer ♀ Fish Cr. - 6700 ft. (with set $\frac{5}{2}$)
 1675 Eutamias merriami ♂ " " "
 1676 Peromyscus gambeli ♂ So. Fork 6200 ft.
 1677 " " ♀ " " "

July 1

- 678 *Vespertilio fuscus* ♂ South Fork - 6200 ft.
679 *Peromyscus gambeli* ♀ " " " "
680 " " ♂ " " " "
681 " " ♂ " " " "

July 2

- 7549 Pacific Nighthawk ♀ " " " "
1682 *Vespertilio fuscus* ♂ " " " "
1683 *Eutamias speciosus* ♀ jr. Fish Creek, 8000 ft.

Egg Data.

Cassin Vireo, June 29.

Set $\frac{7}{4}^c$ (with both parents), fresh; ♀ sitting; nest 12 feet up in lower outer foliage of cedar growing among firs at mouth of Fish Cr.

Gray Flycatcher, July 3.

Set $\frac{9}{3}$, fresh, (with ♀); nest 40 feet up on 3-inch limb of large cedar at mouth of Fish Cr., in woods of pine, cedar & fir: nest wedged down against supporting limb and upright main trunk, material being fastened to the loose cedar bark of both, ♀ sitting until I nearly reached her altho tree was jarred repeatedly as I climbed up.

Set $\frac{10}{2}$, inc. advanced (with ♀); ^{also Fish Cr., 6500 ft.;} nest 6 feet up on horizontal branch of cottonwood where two other upright smaller limbs emanated; rattlesnake coiled beneath, but ♀ sitting closely; this nest held 3 eggs on June 29, but one must have been destroyed since, tho no shell remains beneath where I looked carefully.

Calliope Hummer - Fish Cr., 6700 ft.

Set 4_2 , June 25; inc. far advanced; nest 12 feet up in dead silk-tassel tree, 6800 ft., Fish Cr.

Set 5_2 , June 30, with ♀; inc. advanced; nest 20 feet up on horizontal ^{dead} branch growing downwards beneath live limb of older 100 feet from stream & well-shaded.

July 3.

- 7550 California Yellow Warbler ♂ So. Fork, 6200 ft.
1684 *Myotis* ♀ (1 Emb.) " " " "
1685 *Peromyscus gambeli* ♀ " " " "
7551 Gray Flycatcher ♀ (with set 9_3) Fish Cr., 6500 ft.
7552 " " ♀ (" " 10_2) " " " "
1686 *Peromyscus gambeli* ♂ So. Fork, 6200 ft.

July 4

- 1687 *Peromyscus gambeli* ♂ " " " "
7553 Pacific Nighthawk ♀ " " " "
7554 Green-tailed Towhee ♀

The oesophagus of the Nighthawk contained 43 winged white-ants, many of them yet alive 15 hrs. later. The towhee was caught in a mouse-trap baited with rolled oats.

- 1688 *Peromyscus gambeli* ♂ So. Fork, 6200 ft.

July 5

- 1689 *Peromyscus boyleyi* ♂ " " " "

Here at the South Fork camp a black phoebe made its appearance this morning with its familiar notes and mien. A flock of bush-tits are often to be seen in the willows nearby, and I saw a deserted nest halfway down the

Santa Ana between here and 7-oaks. Several California yellow warblers have been heard in the willows + cottonwoods here; also one or two spurred Towhees right at the mouth of the So. Fork. We went up to a Cienega on the south face of Sugarloaf, about 6700 ft. alt., this morning, and heard in the belt of piñon, golden + scrub oak which extends across the hottest slope, a wrentit, and a Black-chinned Sparrow. In the cienega, a pair of sparrowhawks were feeding their family of noisy young uncoursed 30 feet up in an old flicker's hole rotted out in a pine stub, with grasshoppers caught on the meadow. Families of full-grown Pygmy Nuthatches, Mountain Chickadees, and Western Bluebirds were seen in the vicinity; also one mourning dove. In the evening several nighthawks (pacificus), come down to hunt insects along the Santa Ana. Violet-green swallows are seen flying as late in the evening as they can be distinguished in the gloom, a refutation of the contention that swallows in general go to roost at sun-down. Several pairs of Green-tailed Towhees evidently have nests of young in the rose thickets of the near vicinity. Last night at dusk I saw what I was quite sure was a sharp-shinned hawk. (?) Have heard and seen a dusky poor-will.

- 7555 Western Bluebird ♂ So. Fork, 6200 ft.
- July 6
- 1690 Peromyscus gambeli ♀ " " " "
- 1691 " boyleyi ♂ " " " "
- 1692 Eutamias merriami ♂ Santa Ana, 5700 ft.
- 7556 Mountain Quail juv. " " " "
- 7557 " " " " " " " "
- 1693 Peromyscus gambeli ♂ So. Fork, 6200 ft.
- 1694 " " ♂ " " " "
- 7558 Black Phoebe ♂ juv. Seven Oaks, 5100 ft.
- 7559 Lazuli Bunting ♂ Santa Ana, 5500 ft.

Went down to T-oaks and back this afternoon. Thunder-stormy muggy weather. In the near vicinity of T-oaks, or within 2 miles this side saw following birds:-

Black-Phoebe (a full-grown juvenal); Song Sparrow (several along stream up nearly to "Louie's"); Lazuli Bunting, Spurred Towhee, Western Bluebird, Western Wood Pewee, Western Chipping Sparrow, Western Tanager, Violet-green Swallow, Mountain Chickadee (all common); Western Gnatcatcher, Bush-tit, Audubon Warbler (1); Black-throated Gray Warbler, Nuttall Woodpecker; Cooper Hawk (1); Wren-tit (2 heard); Black-chinned Sparrow (heard); Ash-throated Flycatcher (2); Calif. Yellow Warbler (several).

Along the trail further this way, met a family of newly-hatched young Mt. Quail.

Since the rains, fresh mole-workings are

appearing everywhere, even up among the rocks on the hillsides, attesting to the unexpected relative abundance of these animals.

July 7

7560 Pacific Nighthawk ♂ So. Fork, 6200 ft.

July 8

1695 Perognathus ♀ " " " "

1696 Peromyscus boylei ♀ " " " "

1697 " " ♂ " " " "

1698 " " ♀ " " " "

1699 " gambeli ♂ " " " "

1700 " " ♂ " " " "

1701 " " ♂ " " " "

7561 Pacific Nighthawk ♀ " " " "

7562 Cooper Hawk ♀ " " " "

July 9

1702 Peromyscus boylei ♂ " " " "

1703 " gambeli ♂ " " " "

1704 " " ♀ " " " "

1705 Myotis lucifugus longicus ♀ " " " "

7563 Green-backed Goldfinch ♀ (with set $\frac{1}{4}$) " " 6400 "

1706 Peromyscus gambeli ♀ " " 6200 "

7564 Audubon Warbler ♂ " " " "

7565 " " ♂ " " " "

7566 Western Tanager ♂ " " " "

Found a Green-backed Goldfinch's nest up on the "bench" (So. Fork, 6400 ft.) with 4 fresh eggs, taken with ♀ parent, ♂ too shy to secure; nest 9 feet up ensconced in a cluster of upright

Twigs of black oak, in the typical black-oak belt (and yellow-pines); I have seen but two or three Green-backed Goldfinches this far up, tho down to 7-oaks they are fairly numerous. The Lawrence Goldfinch is common hereabouts, and a good many siskins are to be heard. The Cooper Hawk was shot with half a ground squirrel (C. beecheyi) in its claws. There was evidently a nest or brood of young nearby. I now think that it was likely a small ♂ Cooper hawk I saw when I thought I saw a sharp-shinned hawk, as this was close to the same place, and I have seen undoubted Cooper's fly by several times in that direction. Saw the first young Audubon Warblers on the wing yesterday (8th), but still being fed by the parents, with noisy teasings. Found a Gray Flycatcher's nest 44 inches up in the upright forks of a small black oak on the canyon side near this camp; contained 4 eggs, with incubation apparently nearing completion (not taken); the nest was rather small but very firm, evidently having been compacted by the rains.

July 10

7567 Sierra Creeper ♀
 1707 Peromyscus gambeli ♂
 1708 " " ♂
 1709 Neotoma ♂ juv.

Fish Cr. - 6700 ft.
 So. Fork - 6200 ft.

" " " "
 " " " "

Went up Fish Creek Canyon this forenoon as far as the "quaking aspen" groves, about 7400 ft. alt. Found a Gray Flycatcher's nest with 2 small young 3 feet up in a small silk-tassel bush; and another only 2 feet up in a small incense cedar, itself 5 feet high, with 4 badly-incubated eggs. Both these nests were very firm almost like papier mache, evidently due to having been compressed by being wet; their dimensions were also less than with the earlier nests, that is, with probably on an average the same bulk of material, they were not so fluffy. Full-grown young were seen of Sierra Hermit Thrush (also a ♂ heard in full song), Sierra Creeper, and Sierra Junco.

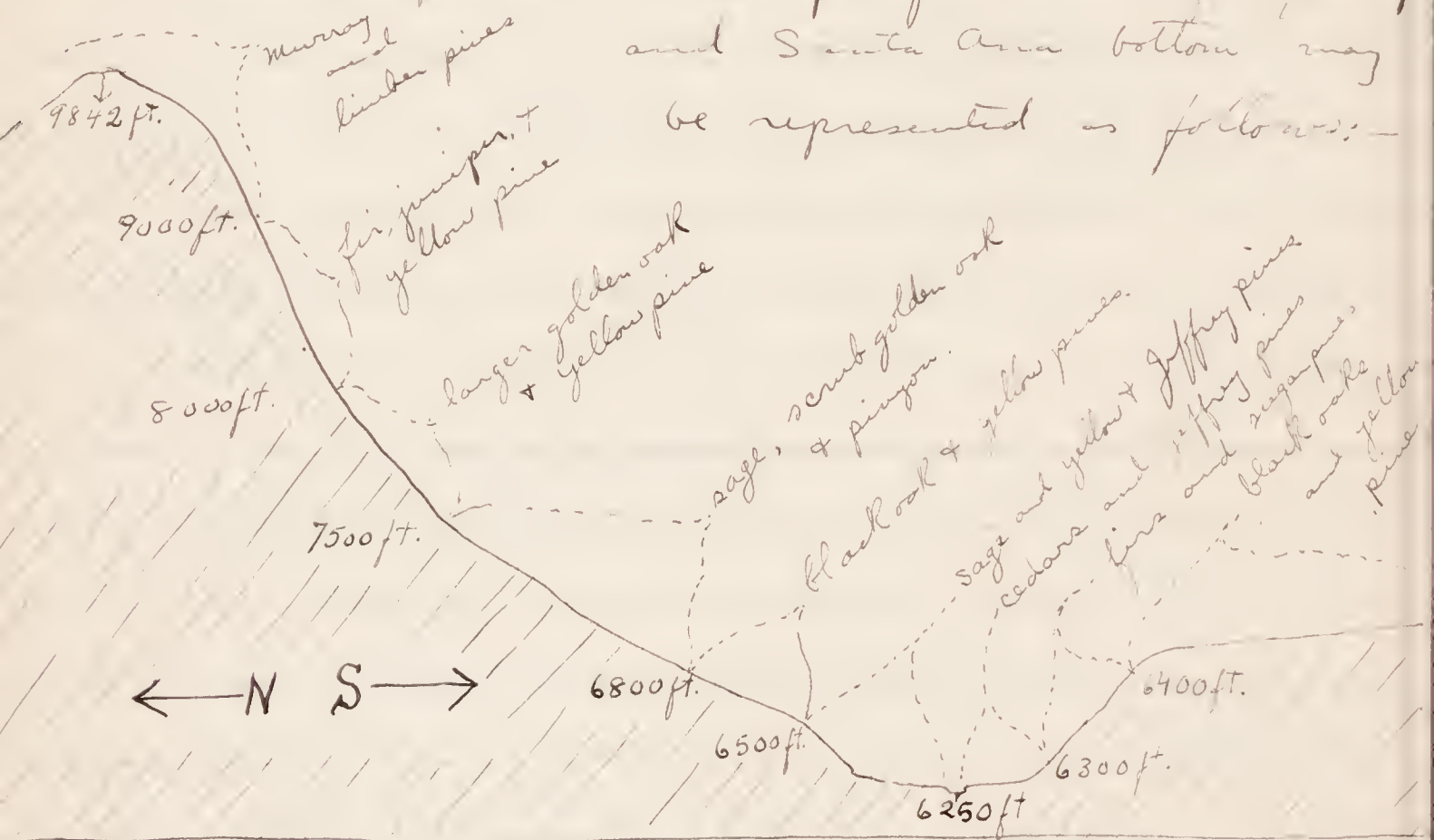
July 11.

1710	<i>Peromyscus gambeli</i>	♂	So. Fork, 6200 ft.
1711	" <i>boylei</i>	♂	" " " "
1712	" "	♀	" " " "
1713	<i>Neotoma</i>	♂ jr.	" " " "
1714	<i>Lepus</i>	♂ *	Sugarloaf, 6700 "
1715	"	♂ jr.	" " " "
7568	Mountain Quail	♀ jr.	" " " "
7569	Brewer Sparrow	♂ ad.	" 7500 "
7570	" "	♂ im.	" " " "
7571	Rock Wren	♂ im.	" 9000 "
7572	Mountain Chickadee	♂ im.	" " " "

* This rabbit measured 28½ inches from end of nose to tip of hind legs when hung up.

Went up Sugarloaf to summit and back
 this forenoon 6:45 to 11:45. The south slope
 has a piñon & sage belt across it above
 a black oak and yellow pine belt; above the
 former is a golden oak belt which merges
 into pine & fir mixed; then a few junipers
 and Murray pines, and finally near or
 over the summit are a mixture of Murray
 and limber pines.

A profile view of Sugarloaf
 and Santa Ana bottom may
 be represented as follows:-



Characteristic birds were:- Sage belt (6800-7500 ft.),
 Black-chinned & Brewer Sparrows; Golden oak (7500-8000 ft.)
 Black-throated Gray Warbler & Wren tit; etc., as usual.
 On summit saw two golden eagles, several
 nesterackers, rock wrens (in rock slides);
 Mountain Chickadee, Western Bluebird, Sierra Junco
 white-headed wood pecker (at about 9000 feet);
 An inborn Warbler, Green-tailed Towhee (up to 9000 ft.);
 Calliope Hummer (at 9000 ft.); Rufous Hummer (one ♂, been
 plainly seen, at castillejas, among pines & firs at about 9000 ft.).

July 12

- 716 *Peromyscus gambeli* ♂ So. Fork - 6200 ft.
1717 *Perognathus* ♀ jr. " " " "
7573 Western Bluebird ♂ " " " "

July 13

- 7574 Lazuli Bunting ♀ " " " "

July 14

- 1718 *Peromyscus gambeli* ♂ " " " "
1719 " " ♂ " " " "
1720 " *boylei* ♀ " " " "
7575 Lawrence Goldfinch ♂ jr. " " " "
7576 " " ♂ jr. " " " "
7577 Mountain Chickadee ♀ jr. " " " "
7578 Western Warbling Vireo ♀ " " " "
7579 Western Wood Pewee ♂ " " " "
7580 Calif. Purple Finch ♀ " " " "
7581 Sierra junco ♀ jr. Lost Creek, 6400 ft.
7582 Gray Flycatcher ♀ (with set $\frac{1}{4}$) " " 6500 "

Found a set ($\frac{1}{4}$) Gray Flycatcher, incubation advanced, at about 6500 ft. altitude in Lost Creek Canyon, the ♀ being secured; nest 10 feet up on horizontal branch of black oak growing on canyon side, and profusely supported by numbers of small dead and living twigs given off upwards from the main branch (about 2 inches in diameter) and drooping down past the rim from the next branch above; The nest was still wet and sodden from yesterday's

heavy rain, and shrunken & compressed in consequence; the eggs are discolored beyond washing and this staining ^{was} evidently acquired from contact with the wet nest-material. It is a wonder to me how small birds & nests could escape yesterday's violent hail storm, when hailstones "as big as moth-balls," certainly larger than the flycatcher's eggs, fell thickly for many minutes; and yet birds seem to be as abundant and singative as ever this morning.

Found another Gray Flycatcher nest near the Santa Ana at mouth of Lost Creek, about 6400 feet; this was 10 feet up saddled in large crotch of a cottonwood and held two small young. Today near our South Fork camp took two full-grown juvenal Lawrence Goldfinches, the first I have ever seen. Both were males, and each showed one or two black feathers, one on forehead, and the other in the chin. These seemed to be advance feathers of the first annual plumage, for new feathers were appearing in other tracts also.

July 15

Went up to Dry Lake, 9000-9300 ft. alt., this forenoon, 6:45 to 10:7, and collected around there, staying all night. Snow all gone except in deep ravine leading up towards

Grayback. Lake full and running over as a result, possibly, of recent heavy rains. Sleet storm in afternoon whitened higher ridges. On the curiously furrowed, rock heap-strewn flat southwest of Dry Lake, 9100-9300 ft. alt., I at last secured the identity of the crossbills. I am sure it was the same species I saw + heard flying overhead a month ago in the same place, and perhaps also last year thinking them Cassin Purple Finches or Dickcissel (!); but the crossbill notes are characteristic and unmistakable, loud calls or chirps of a peculiar twang, and rapidly repeated (goldfinch-like) notes when flying. I saw at least 8, all old, several together in one tree, but presently scattered out in pairs apparently, the bright red males showing solicitude when a ♀ was shot. They were feeding on green (year-old) cones in the tops of limber pines (Pinus flexilis), being still and hard to distinguish from the cones when working on them. The three secured were adults, but I thought I saw streaked juvenals as well. We traced down two young $\frac{2}{3}$ -fledged Cassin Purple Finches whose relatively loud food-calls uttered at intervals, suggested much larger birds. Sierra Hermit Thrushes were yet in full song, late and early, tho a nearly full-grown juvenal was taken. Audubon Warblers, adults only seen, were carrying insects, indicating broods of young. About the margin of Dry Lake

was a pair of Spotted Sandpipers, which kept flying out over the water, on being approached in their usual wide semicircle. The one taken was shot as it flew out in this way, and we had to wait till the slight breeze drifted it ashore. Other birds of Dry Lake were: - Western Robin (♂ in full song at last rays of setting sun, and as soon as it was light enough to see distinctly in the morning); Gray Flycatcher, Red-shafted Flicker (1); Cabanis Woodpecker (1); Pygmy and Slender-billed Nuthatches, Western Chipping Sparrow and Sierra Junco (full-grown young of these two), Western Bluebird, Solitaire (heard singing, and an empty nest found in the ravine entering Dry Lake from the Grayback side; this nest was under a projecting rock in the shelving bank about 12 feet above the bed of the ravine); Sierra Creeper, Pine Siskin; Williamson Sapsucker (only 2 seen, and 2 more heard).

7583	Spotted Sandpiper	♂ im.	Dry Lake, 9000 ft.
7584	Cross-bill	♀	" " 9200 ft.
7585	"	♂	" " " "
7586	"	♂	" " " "
7587	Gray Flycatcher	♂	" " " "
7588	Sierra Hermit Thrush	♂ juv.	" " " "
7589	Cassin Purple Finch	♀ juv.	" " " "
7590	Audubon Warbler	♂	" " " "
7591	Williamson Sapsucker	♀	" " " "

July 16

Left camp at Dry Lake at 4:45 this morning and reached summit of San Geronimo Peak (Grayback) at 7:10, returning and reaching camp at 9:00; then back down the south fork trail reaching base camp on the Santa Ana (mouth of South Fork) at 11:50. The snow is pretty well off Grayback now save for drift on the east sides of ridge-crests, and in the more extensive slides. Before we left wildly boiling masses of vapor (?) began to form (also on San Jacinto across ~~the~~ ^{San Geronimo} Pass) and by 10:30 as we looked back from our homeward trail a heavy thunder-storm was raging. About the summit of Grayback saw birds as follows:— about the edges of the snow patches there were fully 20 California Horned Larks in flocks of 6 or 8, or just pairs. The one taken was an adult, but I thought I also saw full-sized juvenals. These could not possibly have bred there, & must have wandered up from the plainly-to-be-seen fields in the vicinity of Beaumont and Banning, or from Bear Valley to the north across the Santa Ana. Rock Wrens were fairly common among the boulders, as usual.

Several parties of full-grown juvenal Sierra Juncos with adults, were about the rocks at the very summit, and must have wandered up recently. Several Audubon Warblers and Nutcrackers were seen at the uppermost flattened out dwarf timber pine bunches on the north slope. The notes of the latter were heard from the cairn at the very summit.

- 7592 Rock Wren ♀ juv. Grayback, 11000 ft.
7593 Sierra Junco ♂ juv. " 11500 ft.
7594 California Horned Lark ♂ " " "
7595 Audubon Warbler ♀ juv. So. Fork, 6200 ft.

This afternoon about 4 o'clock Hilda & I saw two Black Swifts beating down the Santa Ana westward against the wind. Large size and uniformly black color, glancing silvery in certain positions of the wings, makes identity certain.

July 17

Hilda saw another Black Swift this afternoon. Within the past week the region is being invaded by a number of birds which I am quite sure nested further down the Santa Ana, possibly in the Pacific foothills and valleys. Of these Parkman Wrens are very noticeable, and I saw one as high as So. Fork Ciemga, 8500 ft., on the 15th.

Black Phoebes are very often seen now, full-grown juvenals, all along the valley of the

Santa Ana. I saw them very commonly about 7 o'clock this afternoon in my trip down for grub. Have seen three or four here at So. Fork Camp. Several Red-shafted Flickers have been noted lately in this vicinity; also Rufous Hummers (or possibly alleni), tho these are of course migrants from much further north. Most of the breeding birds are feeding full-fledged young now, and bird-life in consequence seems more abundant, as it most certainly is, than it was in June. The population has at least doubled, surely.

July 18

The abundance of rattlesnakes is unusual, tho they are mostly small, about two feet (one 22 inches and another 24 inches, by actual measurement). They seem to haunt the willow-clumps in the canyon bottoms especially. We found one in the slow act of swallowing, in this case about half-completed, an adult meadow-mouse (Microtus). Another contained an entire full-grown gopher (Thomomys). The rattles number from 3 to 9. The only other snakes seen hereabouts is a very common garter snake (Thamnophis elegans?). These are

found up on the dry sage-covered canyon-sides a quarter of a mile from water, as well as along the creek and in the ciemegas. Sugarloaf Ciemega, 6700 feet, south slope seems especially well populated with them. We have seen at least 5 blue-tailed skinks (Eumeces skiltonianus), which appeared just after rains mostly, and are always in the search for cover. Two horned toads (Phrynosoma blainvillii) have been seen here; they are more common down towards 7000 ft. Uta stansburiana is not very common this far up. But Sceloporus is abundant up to 8500 feet on southerly slopes. It is Hilda's conclusion that the salmon-pink sided individuals are an age or phase of the blue-throated & blue-bellied S. biserialis. For we have found apparent intermediate color steps.

July 19

Went up to Martin's at Big Meadows this morning. In the lower end of the meadow in a growth of tall grass & willows I heard the characteristic song of the Lincoln Sparrow. There were also Sozuli Buntings.

1721	<u>Vespertilis fuscus</u> ♂	So. Fork - 6200 ft.
7596	Western Warbling Vireo ♂	" " " "
7597	Western Bluebird ♂	" " " "

July 20

1722	<i>Peromyscus boylii</i>	♀	So. Fork, 6200 ft.
1723	"	♂	" " " "
1724	"	♀	" " " "
1725	"	♂	" " " "
1726	"	♀	" " " "
7598	Western Warbling Vireo	♀ jr.	" " " "
7599	Sierra Junco	♂	" " 6400 ft.
7600	Western Bluebird	♂	" " " "
7601	Mountain Chickadee	♂	" " " "
7602	"	♀	" " " "
7603	Western Chipping Sparrow	♂ jr.	" " " "
7604	"	♂ jr.	" " " "
7605	Ash-throated Flycatcher	♂	" " " "
7606	California Purple Finch	♂	" " 6300 ft.
1727	<i>Peromyscus gambeli</i>	♂	" " 6200 ft.
7607	Calliope Hummer	♀ jr.	Santa Ana, 6100 ft.
7608	Western Robin	♂	" " " "
7609	Sierra Junco	♀	" " " "
7610	Cassin Purple Finch	♀ jr.	" " " "
7611	"	♂ jr.	" " " "

The taking of two California Purple Finches confirms my suspicions that this species occurs on the Pacific side of these mts., tho at a lower level than the Cassin. I saw a ♂ of the former at Snyder's ranch below T-oaks on June 18, and on July 6 and 17 I saw several young in the willows just above T-oaks. The ♂ shot today was feeding alone on the ground near the mouth of South Fork.

July 21

1728	Perognathus	♂	So. Fork, 6200 ft.
1729	Peromyscus boyleyi	♂	" " " "
1730	"	♂	" " " "
1731	"	♀	" " " "
1732	"	♂	" " " "
1733	"	♀	" " " "

July 22

1734	Peromyscus gambeli	♀	" " " "
1735	" boyleyi	♂	" " " "
1736	"	♂	" " " "
1737	"	♀	" " " "
7612	Mountain Quail	♂ ju.	Sugarloaf Cienega, 6600 ft.
7613	"	♂ ju.	" " " "
7614	"	♂ ju.	" " " "
7615	Cassin Purple Finch	♂	So. Fork, 6200 ft.
7616	Green-tailed Towhee	♂ im.	" " " "
7617	Gray Flycatcher	♂	Fish Cr., 6800 ft.
7618	"	♂ ju.	" " " "
7619	"	♀ ju.	" " " "

July 23

1738	Perognathus	♀ ju.	So. Fork, 6200 ft.
1739	Peromyscus boyleyi	♂	" " " "
1740	"	♂	" " " "
1741	"	♀	" " " "
1742	Peromyscus gambeli	♂	" " " "
1743	"	♂	" " " "
7620	Sierra Junco	♂ ju.	" " " "
7621	Cassin Vireo	♂	" " " "

7622 Lazuli Bunting ♂ juv.

So. Fork, 6200 ft.

7623

♂

July 24.

11 a.m. — Have just been up the South Fork trail to the lower end of the big Ciuega, about 7800 feet I suppose. Thunder storm began to gather by 9, and by 10 it was raining hard, and is yet. Allen (+ Rufous?) Hummers are common and very noisy about the patches of scarlet Pentstemon labrosus. A large company of young Violet-green swallows had collected on the barren upper branches of a dead pine, every now and then making spasmodic sallies out among the trees with loud twitterings, to soon return scatteringly. These are the first young I have seen on the wing. Full-grown Green-tailed Towhees are common about the Ceanothus cordulatus patches. The one I took on the 22nd was even in the moult into the 1st Annual plumage. I saw two adult Fox Sparrows, but no young. A company of wandering Black-throated Gray Warblers mostly if not all birds-of-the-year in the Black oak belt, about 7000 feet, show the migratory season to be beginning. The one taken had almost completed the moult from the juvenal to the 1st Annual. Many young Audubon Warblers are foraging.

independently. A large Golden Eagle
was flushed from a dead pine, and two
families of Sparrow hawks were noted.
Several Nutcrackers were seen and
heard, and a covey of very small
Mountain Quail surprised. A Cassin
Vireo in full fall plumage (1st) was
bobnobbing with a bunch of young Chipping
Sparrows in a clover patch. Many
Parkman Wrens were heard, one in
broken song. The juvenal Williamson
Sapsucker was quietly clambering up a
pine, & was mistaken for a Cabini
Woodpecker, several of which were
heard in the vicinity. 3 or 4
Red-shafted Flickers were flushed from
the ground between brush-patches. Almost
the only birds in the Cienega were
Sierra Juncos, full-grown young of which
are now common. Two adult
male Tanagers were noted. Wood
Pewees, Gray and Olive-sided Flycatchers
were noted as usual. Saw one full-
plumaged (fall) Intersect Warbler in the
brush. Saw also Calliope Hummer,
Western Bluebird, Spurred Towhee (one
on edge of south-east-facing slope of
canyon where pinyons & golden oaks grow),
Pygmy and Slender-billed Nuthatches, Sierra Creeper,

Blue-fronted Jay, Mountain Chickadee, Mourning Dove (a pair in the black-oak belt at about 7000 ft.)

Pine Siskin:— in all, 32 species.

- 1744 *Eutamias speciosus* ♀ So. Fork, 7800 ft.
1745 " " ♂ " " " "
1746 " " ♂ " " " "
7624 Black-throated Gray Warbler ♂ im. " " 7000 ft.
7625 Calliope Hummer ♀ " " " "
7626 Cassin Vireo ♂ im. " " 7800 ft.
7627 Stephens Fox Sparrow ♂ " " " "
7628 Williamson Sapsucker ♀ jr. " " 7000 ft.
7629 Cassin Purple Finch ♂ jr. " " " "
7630 " " " ♀ jr. " " " "

July 25

- 1747 *Peromyscus boylei* ♀ " " 6200 ft.
1748 " " ♀ " " " "
1749 " " ♂ " " " "
1750 " " ♂ " " " "
7631 Western Tanager ♂ Santa Ana, 6700 ft.
7632 Black-headed Grosbeak ♂ " " " "
7633 Sierra Junco ♂ " " " "
7634 Mountain Quail ♂ jr. " " " "
7635 House Finch ♀ im. " " " "
7636 " " ♂ jr. " " " "
1751 *Peromyscus boylei* ♂ So. Fork, 6200 ft.
7637 Pine Siskin ♂ Santa Ana, 6700 ft.
7638 Audubon Warbler ♂ jr. " " " "
7639 Slender-billed Nuthatch ♂ jr. " " " "
7640 " " ♂ jr. " " " "

July 25 (continued)

- 7641 Parkman Wren ♂ jr. Santa Ana, 6700 ft
7642 " " ♀ im. " " " "
7643 Pygmy Nuthatch ♂ jr. " " " "
1752 *Vespertilio fuscus* ♂ So. Fork, 6200,

July 26

- 7644 Western Robin ♂ " " " "
7645 Cassin Purple Finch ♂ " " " "
1753 *Peromyscus boylei* ♂ " " " "
1754 " " ♂ " " " "
7646 Allen(?) Hummer ♀ " " " "
1755 *Peromyscus boylei* ♂ " " " "
1756 " " ♀ " " " "
1757 " " ♀ " " " "
7647 allen(?) Hummer ♂ im. " " " "
7648 " " ♀ im. " " " "
7649 Parkman Wren ♂ jr. " " " "
7650 Slender-billed Nuthatch ♂ im. " " " "

July 27

- 1758 *Peromyscus boylei* ♀ " " " "
1759 " " ♀ " " " "
1760 " " ♂ " " " "
1761 " " ♀ " " " "

July 28

- 1762 " " ♀ " " " "
1763 " " ♀ " " " "
1764 " " ♀ " " " "
1765 " *gambeli* ♀ " " " "
1766 " " ♂ " " " "
1767 " " ♂ " " " "

7651 Spurred Towhee ♂ So. Fork, 6200 ft.

July 29

- 1768 *Eutamias merriami* ♀ " " " "
1769 *Peromyscus boylei* ♀ " " " "
1770 " " ♂ " " " "
1771 " " ♀ " " " "
7652 Audubon Warbler ♂ " " 6800 ft.
7653 Western Chipping Sparrow ♂ " " " "
7654 Sierra Hermit Thrush ♂ " " 7500 "
7655 Gray Flycatcher ♀ " " " "
7656 " " ♀ jr. " " " "
7657 " " ♀ jr. " " " "
7658 " " ♂ jr. " " " "
1772 *Eutamias speciosus* ♂ " " " "
1773 " " ♀ " " " "
1774 " " ♂ " " " "
7659 Gray Flycatcher ♂ jr. " " " "

July 30.

- 1775 *Peromyscus boylei* ♀ " " 6200 ft.
1776 " " ♀ " " " "
1777 " *gambeli* ♂ " " " "
1778 " " ♀ " " " "

Yesterday Hilda + I went up the So. Fork trail to the lower end of the big Cienga, + then struck down into the canyon following the So. Fork back down to camp. Birds are mostly quiet now, with a preponderance of youngsters which are most conspicuous in their activity + most liable to be shot.

Bands of Violet-green Swallows were met with at the upper edge of the black-oak belt, where also was seen a company of Bush-tits, undoubtedly wandered up from a much lower zone. Parula wrens are still numerous everywhere. Along the So. Fork we saw several Hermit Thrushes feeding in the shade, perhaps on the ripe strawberries. The one shot was an adult ♂ in dreadfully ragged plumage, some feathers of wings and lateral tracts just coming in.

July 31

- | | | |
|------|-----------------------------------|--------------------|
| 7660 | Cassin Vireo ♂ im. | So. Fork, 6200 ft. |
| 7661 | Western Bluebird ♂ juv. | " " " " |
| 7662 | Black-chin Hummer ♂ | " " " " |
| 1779 | Peromyscus boyleyi ♂ | " " " " |
| 1780 | " gambeli ♂ | " " " " |
| 1781 | Eutamias merriami ♂ | Lost Cr., 6500 ft. |
| 7663 | Calliope Hummer ♀ juv. | " " " " |
| 7664 | Western Robin ♂ juv. | So. Fork, 6200 ft. |
| 7665 | Sazuli Bunting ♂ juv. | " " " " |
| 7666 | Pileolated (Golden) Warbler ♀ im. | " " " " |
| 7667 | Sierra Junco ♂? juv. | " " " " |
| 7668 | " " ♀ juv. | " " " " |
| 7669 | " " ♂ juv. | " " " " |
| 7670 | " " ♀? juv. | " " " " |
| 7671 | Sierra Creeper ♂ | " " " " |
| 7672 | Western Chipping Sparrow ♂ juv. | " " " " |
| 7673 | Intersect Warbler ♀ im. | " " " " |

- 7674 Black-throated Gray Warbler ♂ im. Lost Cr., 6400ft.
 7675 " " " ♂ im. " " " "
 7676 " " " ♀ im. " " " "
 7677 " " " ♀ im. " " " "
 7678 Mountain Chickadee ♀ ju.
 7679 " " " ♀ ju.

August 1

- 7680 Cassin Vireo ♂ Santa Ana, 6000ft.
 7681 Sierra Junco ♀ ju.
 7682 " " ♀ ju.
 7683 " " ♂ ju.
 7684 Empidonax difficilis ♀
 7685 " canescens ♀ ju.
 7686 " " ♀ ju.
 7687 Rufous (?) Hummer ♀
 7688 Green-tailed Towhee ♂ ju.
 7689 Cassin Purple Finch ♂ ju.
 7690 " " " ♂ im.
 7691 " " " ♀ ju.
 7692 " " " ♀ ju.
 7693 Green-backed Goldfinch ♂ ju.
 7694 Lazuli Bunting ♂ ju.
 7695 Western Bluebird ♂ ju.
 7696 " " ♂ ju.
 7697 " " ♂ ju.
 7698 " " ♂ ju.
 7699 Western Wood Pewee ♀ ju.
 7700 Mountain Chickadee ♀ ju.
 7701 " " ♂ ju.
 7702 " " ♂ ju.

- 7703 Slender-billed Nuthatch ♂ jr. Santa Ana, 6000 ft.
 7704 " " ♂ jr. " " " "
 7705 Pygmy Nuthatch ♀ jr. " " " "
 7706 " " ♂ jr. " " " "
 7707 " " ♀ jr. " " " "

Aug. 2

- 7708 Western Warbling Vireo ♀ Lost Cr., 6500 ft.
 7709 Cassin Purple Finch ♂ " " " "
 7710 Western Tanager ♂ jr. " " " "
 7711 Black-headed Grosbeak ♂ jr. " " " "
 1782 Peromyscus gambeli ♀ (5 emb.) So. Fork, 6200 ft.
 1783 " " ♂ " " " "

Yesterday, down by the "South Fork Cabin", about 6000 ft., I got a good view for some minutes of a Gairdner, or rather Willow Woodpecker. (?) It had been calling for some time in the willow thickets & finally flew up onto a bare cedar stub in full view but too far off for a successful shot. I have heard notes for the past two weeks all along here, up to the lower end of Big Meadows, which I ascribed to the Nuttall Woodpecker, and these may have belonged partly or all to the Willow Woodpecker. The species doubtless feeds in the willows lower down the Santa Ana, & now like so many other species, which bred lower down, is moving up into the mountains. Families of

Black-headed Grosbeaks, Bush-tits, several Western Gnatcatchers, scores of Parkman Wrens, and even a good many linnets are moving up along the Santa Ana, where a month ago none of these species were to be seen. The Western and Trail Flycatchers have invaded the domain of the Gray Flycatcher, tho each breeds in a very distinct belt (thus accounting for there being three distinct species of Empidonax breeding in this one range of mountains). Warblers (Lutescent, yellow, Black-throated Gray, and Golden Pileolated) are passing thru in regular migratory fashion, tho not necessarily going beyond the confines of these mountains as yet. These birds are nearly all in full 1st winter, or autumn, plumage, a few only, showing remnants of juvenal plumage. The adults of these species now are in very ragged and moulting plumage, and are extremely quiet and seclusive. Today up on the flat between So. Fork and Lost Creek, we saw an adult (and very dark, Golden Eagle. It lit unawares on a branch not more than 50 yards from us. Adult & immature Western Red-tails are frequently seen

here, up Fish Creek, & South Fork. Nutcrackers
are often noted within hearing of camp.
Flickers, Redrafted, are noticeably more
common. Black Phoebes, all closely
enough scrutinized being juveniles, are
very common along the stream (Santa Ana).
Birds, both in species and individuals,
are far more numerous now than they
were in June. Aside from the increase
naturally resulting from reproduction, this
is undoubtedly to my mind due to
the extreme abundance now of both
vegetable & insect food, particularly the
latter. This, birds of the lower
valley & foothill regions (now becoming
parched and less productive of food)
seem to be largely taking advantage
of. Insect larvae are abundant on
the foliage of willows, oaks, & pines; and
the air teems with gnats, flies, etc.,
which furnish ready provender for
the insectivorous birds. And even
normally seed-eaters, such as shipping
sparrows, are seen carrying larvae, to their
full-grown, but teasing offspring. A special
feature of the past three weeks or a little
more is the influx of numerous hummers.
Those taken have the gullets crammed with
gnats & small spiders. A significant coincidence

(perhaps?) is the bursting into bloom of quantities of Pentstemon labrosus, just about the time the hummers arrived, and the latter seem to be the only visitors to these flowers.— The structure of the latter, too, show a clear case of ornithophily. The red-plumaged Allen + Rufous Hummers of rapid and erratic flight harmonize surprisingly with shimmering and gauzy patches of scarlet Pentstemons! We have failed to see a single Nighthawk anywhere since July 15 (at Dry Lake), tho in June they came regularly at dusk down along the Santa Ana below camp.

Aug. 3

7712	West. Warbling Vireo ♀	Santa Ana, 6600 ft.
7713	Sinnat ♀ im.	" " " "
7714	Western Flycatcher ♂	" " " "
7715	Black-throated Gray Warbler ♀ im.	" " " "
7716	Gray Flycatcher ♀ juv.	" " " "
7717	" " ♀ juv.	" " " "
7718	West. Wood Pewee ♂	" " " "
7719	Mt. Chickadee ♂ juv.	" " " "
7720	Brewer Sparrow ♀ im.	" " " "
7721	Black-headed Grosbeak ♀	" " " "
7722	Green-tailed Towhee ♀ im	" " " "
7723	Sierra Junco ♀	" " " "
7724	" " ♂ juv.	" " " "
7725	Pygmy Nuthatch ♀ juv.	" " " "
7726	West. Chipping Sparrow ♀	" " " "

Aug. 4

- 1784 *Myotis l. longicus* ♂ Santa Ana, 6100 f.
1785 *Peromyscus gambeli* ♂ " " 6200 f.
1786 " " ♀ " " " "
1787 *Eutamias merriami* ♀ " " 6000 f.
7727 Rufous (?) Hummer ♀ " " " "
7728 Gray Flycatcher ♀ " " " "
7729 " " ♀ jr. " " " "
7730 Western " ♂ jr. " " " "
7731 Black-throated Gray Warbler ♂ im. " " " "
7732 " " " ♂ im. " " " "
7733 Calif. Yellow " ♂ im. " " " "
7734 Calif. Purple Finch ♀ " " " "
7735 " " " ♂ jr. " " " "
7736 Cassin " " ♀ jr. " " " "
7737 " " " ♂ " " " " "
7738 Golden Pileolated Warbler ♂ im. " " " "
7739 Green-tailed Towhee ♀ im. " " " "
7740 " " ♀ im. " " " "
7741 Nuttall Woodpecker ♀ jr. " " " "
7742 " " ♀ jr. " " " "
7743 Black-headed Grosbeak ♂ " " " "
7744 " " ♀ jr. " " " "
7745 Lazuli Bunting ♀ jr. " " " "
7746 Olive-sided Flycatcher ♀ jr. " " " "
7747 " " ♀ jr. " " " "
7748 West. Wood Pewee ♂ " " " "
7749 Parkman Wren ♂ jr. " " " "
7750 Slender-bill Nuthatch ♀ im. " " " "

- 7751 Sierra Junco ♂ ju. Santa Ana, 6000 ft.
 7752 " " ♀ ju. " " " "
 7753 West. Warbling Vireo ♂ im. " " " "

Aug. 5

Prepared specimens and packed up.

Aug. 6.

Left So. Fork by Martin's wagon at 8:10 am, reaching 7-oaks 9:10; left 7-oaks by horse-back and pack at 10:30, getting to Harvey's for lunch at 1:45 P.M.; left Harvey's by stage at 2:10 and reached Santa Fe station at Redlands at 3:50. Left Redlands by S.P. at 4:30 & arrived home at Pasadena at 7:00.

11

1907 - June 13.

Left Redlands at 10:30 & came to Skimmers, arriving at 2:10 P.M. Saw and heard at mouth of Mill Creek several Black-chinned Sparrows. Up a ways, saw white-throated Swifts. Left Skimmers at 3:30 and arrived at Seven Oaks at 6:10 P.M. Saw and heard in Mt. Home canyon California Purple Finches, also the same species here at Seven Oaks.

June 14

wakened at 4:40 this morning by the chorus of bird-voices around the resort here at Seven Oaks.

The singers were: West. Wood Pewee, Traill Flycatcher, Parkman Wren, Bullock Oriole, Black-headed Grosbeak, Warbling Vireo, Western Robin, San Diego Song Sparrow, Calif. Yellow Warbler, & Western Tanager.

Came up to our old camp at mouth of South Fork this forenoon. On the way up (alt. about 5500 feet) found a Lozuli Bunting's nest 2 feet up in a sage (A. tridentata), with four small young. This was near a grassy cienega on the south-facing north side of the valley. Saw a Sierra Sapsucker on an alder by the stream. Also heard Black-chinned Sparrows all along the north wall of the canyon, nearly to the immediate slope of Sugarloaf.

June 15.

Went a little way up South Fork this morning. Found a Sierra Hermit Thrush's nest 3 feet up in a very young fir near the stream; altho there were but two eggs the old bird was sitting very closely and I presume it to be a full set. Also saw bob-tailed young juncos.

June 16

Found a Green-tailed Towhee's nest today near camp. It was under a very small and scraggly specimen of

Artemisia tridentata in an open space, fully 20 feet from any heavier brush or trees. The nest top was flush with the surface of the ground, almost touching the main stalks of the sage and overhung by the latter. The nest consisted of a basement formation of weed stems + coarse grass with one or two strips of cedar bark, lined with fine brown plant stems. There were four young about a week old. The parents showed solicitude by uttering the kitten-like ruse & a sharp peep from the neighboring bushes.

June 17

A Sparrow Hawk is often seen and heard around camp. Probably has a nest up the hillside where a brood of young appeared in July last year. Birds in general appear to be far scarcer than last year; or else very much shyer and quieter. The "wind-mill" jay is visiting camp again this year.

June 18-19

Went up to Dry Lake and Grayback.

- | | | | | |
|------|----------------------|--------|-------------------|----------|
| 7920 | Sierra Hermit Thrush | ♂ | Dry Lake, 9000ft. | June 18. |
| 7921 | Brewer Blackbird | ♂ jr. | " " " " " | " " |
| 7922 | Williamson Sapsucker | ♂ | " " " " " | " " |
| 7923 | Western Robin | ♀ juv. | " " " " " | 19 |
| 7924 | American Dipper | ♂ juv. | " " " " " | " " |

At Dry Lake I found one lone juvenal Brewer Blackbird, which had undoubtedly wandered up from his breeding range somewhere below. He certainly found plenty to eat, for he was feeding on the muddy east shore of the Lake, where insects and little toads abounded. A Williamson Sapsucker tamarack contained 47 well-formed holes, besides numerous smaller drills. One excavation was occupied, as I could hear the "whinnying" of young sapsuckers within. This was about 10 feet from the ground, one of the lowest ones of the series which extended up the dead pine fully 35 feet on all sides. The ♂, shot, had its bill crammed with wood ants. Another hole in the same tree contained young Slenderbilled Nuthatches.

At an elevation of about 9200 feet, towards Graybock from Dry Lake, I found a Mountain Chickadee nest four feet up in a rotted out knot-hole of a tamarack pine. The nest was a rather scant accumulation of fur and down feathers. The seven eggs, nearly fresh, are remarkable as being unspotted.

Saw one Golden Eagle fly across over Dry Lake. Saw a ♀ Cassin Purple Finch gathering stuff for a nest and nearby a nearly full-grown youngster being fed by its parents. Saw also, and secured one, young robins.

Western Chipping Sparrows were the most numerous

of any species, perhaps Audubon Warblers and Gray Flycatchers coming in next. Along the outlet stream, now large, below Dry Lake was a family of Dippers, one of which was taken. Along the "draw" to the east of Dry Lake were many fresh mole workings, the highest I have seen.

Along the western bank of the Lake, were quite a lot of Microtus burrows among the rocks, logs & Symphoricarpos bush, and one was seen and almost caught by Hollis.

Among butterflies I saw about the lake, attracted by the warm wet places: Aglais wilberti, Eugonia californica, Pyrgus montivaga, and Hesperia ericetorum.

The snow was very heavy on north slopes from below 9000 feet to the summit of Grayback, more than I ever saw before. But the nesting of birds seems to have been just as early as heretofore. On the summit of grayback, a ♂ Junco was singing from the very tip of the cairn, and two Golden Eagles were circling off to the east of the peak. These were the only birds seen on top, tho I saw one yellow-headed Chipmunk, and many insects chilled on the snow-banks. Down the north ridge among the prostrate and dwarfed timber pines were a number of Nutcrackers, the young calling to be fed

with a nasal idiotic laughing note.
The song of the Sierra Hermit Thrush, sounds clear, cold, and mellow. In the South Fork Cieneza (about 8500 ft.), Juncos were common, and a nest was located and photoed. It was in a slight depression beneath the low grass & herbs of the meadow and contained 4 fresh eggs. Saw also in and about the Cieneza: Sierra Sapsucker, Lincoln Sparrow, Western Robin, Stephens Fox Sparrow, Gray Flycatcher, Western Warbling Vireo, Calliope Hummer, White-headed Woodpecker, Western Bluebird, etc.

June 20

A rattlesnake, 26 inches long, with 5 rattles incomplete, contained a $10\frac{3}{8}$ -inch alligator lizard, straight-out, head posteriorly.

June 21.

Went down to Seven Oaks.

June 22.

Went over to Skinner's and back. In a golden oak near the Santa Ana, across the river from Schneider's Ranch (about 2 miles below Seven Oaks), I first heard and then saw a Hutton Vireo. The note was unmistakable. I was horse-back and had no gun. In Mountain Home canyon I saw and heard more California Purple Finches.

June 23

Came back up to So. Fork camp.

July 1

Heard a Horned Owl hooting on the canyon side below camp.

July 2

An immature Anna Hummer poised for a moment before a red sweater.

July 3

First young Audubon Warblers, 1 family, twittering impatiently as they are being fed, in a fir.

A gopher snake, 43 inches long, squirmed into camp this afternoon. In trying to make it pose for its photo, it was put in the hot sunshine and constantly poked back into a certain place. He of course kept starting off. Finally he seemed to succumb and give up completely. For he suddenly became quiet, opened his mouth, gasped quickly several times, assumed a tetanic rigidity, and - was dead. At least, four hours later, he was still rigid and his mouth, still open, was pretty well dried up. I "preserved" him, and found no cause for his death. I feel quite sure he was not injured.

July 4

Hiked down to Seven Oaks and back this forenoon. Dreadfully hot. Many young birds appearing. Saw at 7-oaks: young

Nuttall Woodpeckers; this side of Lewis's Western Gnatcatchers, House Finch, Ash-throated Flycatcher, etc.

July 5.

This afternoon at 4:30 I saw three Black Swifts flying swiftly by overhead up the canyon. Saw a ♀ or young ♂ Rufous or Allen Hummer this morning.

The Blue-fronted Jay, has a note precisely like the cry of a sparrowhawk.

July 6

Went up to Big Meadows this afternoon. Saw there a pair of Western Kingbirds, and some Brewer Blackbirds. Took a Rattlesnake, 37 inches long, 4 inches in girth and weight $1\frac{1}{4}$ lbs.

July 7

Near mouth of Lost Creek got a specimen of Diadophis amabilis. When alarmed it twisted its tail into a tight cork screw, which shone out conspicuous, the vermilion being on the outside. The way the tail was twisted up at the cineroga on south side of Sugarloaf this afternoon saw three Black Swifts fly by going west.

July 9

Went up Fish Creek to aspen groves, photographing. Saw a Gerrhonotus among the fallen leaves beneath a dense clump of aspens. Also took a new sort of Larter Snake on Santa Ana opposite mouth of Fish Creek. Heard a Poor-will across the creek from camp last night.

July 10.

Up to the cieneega on South slope of Sugarloaf, 6700 ft., this evening, found a Lozuli Bunting's nest, 2½ feet up in sage, with three heavily-incubated eggs. Also another belonging to the same species, with precisely the same location, with three small young.

July 11.

On Santa Ana opposite mouth of Fish Creek, in a rotten pine stub is a Violet-green Swallow's nest with three ½ grown young and one egg. This is 8 feet up in an old woodpecker's hole. The nest was very scanty, of weathered grasses and a few feathers.

July 12.

Moved camp down the Santa Ana, to about ¼ mile below the "Cedar Cabin", elevation about 5500 feet. Took specimen of Lampropeltis p. multineata.

July 14

Found a Spurred Towhee's nest close to camp. It was on the ground, rim flush with surface, at base of Artemisia; made of weathered grasses cottonwood bark strips, lined with fine round grasses; contained four eggs.

July 15.

A mile or so above Seven Oaks, near the pasture meadows, saw a Gopher Snake crossing the road; also fully a dozen Horned Toads along the road. A great number of Cliff Swallows were

coursing about over the meadows, mostly young
the year; many were perching on bushes on the
hillside above, twittering noisily. Saw several
Calif Jays near Seven Oaks. A Diadophis amabilis
noted near camp; also a Dipper, and a brood
of young Cooper Hawks about the nest 30 feet up
in alder. There must be a brood of these
every mile or so all along the canyon.

July 16.

Came back to Pasadena. Just below Seven
Oaks saw a family of 3 young Sierra Sapsucker
Down Mountain Home Canyon saw a Cooper Hawk
carrying a California Woodpecker in its talons.
Saw and heard the latter species in the pines around
Glen Martin. At Skinner's noted Olive-sided
Flycatcher, many Yellow Warblers, etc. Toward mouth
Mill Creek and down its "wash," saw several
Cactus Wrens, & Phainopepla; nests of the former.





List of San Bernardino Mountain
Plants

- No. - Time of Blooming - Zonal Dist. - Exact Localities - Rel. Abund.
201. Silene { douglasii
verecunda - July 10 to 27; Low. Trans.;
along Santa Ana at So. Fork, Lost Cr. near Mouth, Fish Cr. near
mouth; level ground under pines; fairly common.
202. Epilobium glaberrimum - Low. Trans. - July 9-27;
along stream; Common; Fish Cr. & South Fork near
mouths, and main Santa Ana.
203. Astragalus hookerianus June 10 - July 10; Low.
Trans.; dry level ground; abund. all along
Santa Ana, 7-oaks to Big Meadows.
204. Draba corrugata - July 10-26; Fairly
common in Upper Trans.; dry ground under
pines; Fish Cr., south-facing slope at dry lake,
one plant on summit of Grayback; along Santa Ana,
6000 to 6500 ft.
205. Castilleja stenantha - July 1 to 22;
Common along Sugarloaf Cienega, So. slope, 6300-
6700.
206. Nicotiana { clevelandi
attenuata - July 7, dry
roadside along Santa Ana near So. Fork, rare;
Big Meadows, July 24. (Abundant at Doble in Aug.)
207. Thalictrum polycarpum June - July; Lower
Transition; shady not too dry places; abundant;
So. Fork, Fish Cr., Santa Ana.
208. Argemone platyceras hispida - June 25-
July 27; along Santa Ana in sandy washes, at
7-oaks, mouths of So. Fork & Cienega Seca; scattering
plants.

- ✓ 209. Gilia pungens { terreiloba
helli — June 10 - July 11;
 Transition; abundant; So. slope Sugarloaf to
 summit (nearly, within 200 feet), along upper
 Santa Ana, Fish Cr., So. Fork, Lost Cr.
- ✓ 210. Pentstemon caesius — July 11 in full bloom;
 Canadian; common — Sugarloaf near summit
 and San Bern. Peak in Murray pine belt.
- ✓ 211. Erigeron concinus aphanactis — July 11;
 common on open gravelly summit of Sugarloaf;
 Canadian?
- ✓ 212. Phacelia { eisenii
humilis? — July 11; common 9000-
 9800 feet on Sugarloaf, under pines.
- ✓ 213. Solanum xanti intermedium — July 11-16;
 Transition; Sugarloaf, so slope, 9600 ft.; So.
 Fork at mouth, & along upper edge of big cienea
 8000 ft.
- ✓ 214. { Castilleja (?)
Orthocarpus pillosus — July 11; common
 on summit of Sugarloaf on open gravelly ground;
 Canadian (?).
- ✓ 215. Pellaea wrightiana — July 11; So. slope Sugarloaf,
 dense low clumps in rock slides.
- ✓ 216. Stachys albens — July 1-27; abundant
 along stream; Santa Ana, 6000-6200 ft.
- ✓ 217. { Carum gairdneri?
Eulophus parishii — July 5-22; abundant
 in Sugarloaf Cienea, 6700 feet, So. slope.
- ✓ 218. Astragalus { soocarpus
parishii — June - July 4; Santa
 Ana, in shady places under trees or on north slopes.

219. { Hydastylis elmeri
Sisyrinchium californicum — July 5-22;
 So. slope Sugarloaf, 6700, growing in water in
 stream in Ciuega; abundant
220. Eriogonum vimineum — July 7-25;
 Common in dryish sandy places along Santa
 Ana, 6000 ft. to Big Meadows.
221. Horkelia parryi — June 15 - July 27;
 abundant in semi-wet places along Santa Ana
 to 6500 ft., Fish Cr. & So. Fork.
222. Pentstemon palmeri — July 1-20; Lower
 Trans.; abundant everywhere — So. Fork, Fish Cr.,
 Santa Ana from 7-oaks up, Sugarloaf to 8000 ft.
223. { Agoseris retrorsa
Troximon retrorsum — June 15 - July 2;
 Trans.; dryish north slopes, under black oaks &
 willows; common on "flats" in black oak belt;
 upper Santa Ana, So. Fork, Lost Cr.
224. Aquilegia truncata — June 25 - July 25;
 Along stream; mt. Home Cr.; Fish Creek; So. Fork;
 Upper Santa Ana; Transition: Common.
225. Hulsea vestita — June 9 - July 25; Dryish
 sandy places & under pines; Transition; common
 everywhere — Sugarloaf, Dry Lake, upper Santa Ana.
226. Lotus americanus — July 8 - 27; sandy
 levels among willows; Upper Santa Ana near
 mouth of Fish Cr.
227. Trifolium wormskjoldi — June & July; edges
 of streams, abundant; Upper Santa Ana & So. slope
 Ciuega on Sugarloaf, 6700 ft.

- ✓ 228. Rumex salicifolius (?) — July 7 to 27,
 along edge of upper Santa Ana, 6000 - 6800 ft. &
 around edge of Dry Lake, abundant.
- ✓ 229. Lotus oblongifolius — June - July; margins
 of upper Santa Ana, 6000 - 6500 ft.; common.
- ✓ 230. { Drymocallis reflexa
Potentilla glandulosa nevadensis — June - July 5;
 in wetish places; fairly common.
- ✓ 231. Hieracium albiflorum — July 1 - 15; So. Fork
 and Fish Cr., dryish places under pines & firs.
- ✓ 232. Rosa californica ^{glabrata} — June & July; abundant
 in thickets in canyon bottom; Santa Ana to
 Big Meadows; Cinega on N slope Sugarloaf; So.
 Fork.
- ✓ 233. Linum lewisi — June 10 - July 25; Transition;
 common; dryish places under pines; upper
 Santa Ana, and on Black oak flats.
- ✓ 234. { Navarretia densifolia sapharina
Gilia virgata — July 8 - 27; abundant in
 dryish levels between pine shadows; Black oak
 flats & upper Santa Ana valley.
- ✓ 235. Eriophyllum confertiflorum trifidum — June
 15 - July 15; abundant on dry slopes — upper
 & lower Transition, chiefly latter.
- ✓ 236. Hymenopappus lugens — June 30 - July 25;
 not common; in black-oak belt near Fish Cr., Lost
 Cr. & So. Fork; 6500 - 7000 ft.
- ✓ 237. Ceanothus { ^{nevadensis?}
integerrimus; — July 4 - 25; Upper
 Sonoran into Lower Transition; Santa Ana,

south-facing hillsides up 6500 feet; So. Fork,
ditto.

238. Equisetum funstoni July 1-10; So. Fork
abundant in open places + dry.

239. Convolvulus { ^{gracilentus}
villosus fulcratus —
June 15 - July 15; Sugarloaf, so slope 6700 ft.;
fairly common; Santa Ana to Big Meadows.

240. { ^{Antennaria rosea}
Antennaria speciosa E. Nelson — July 5-20;
dryish places; Sugarloaf, so slope, 6700 ft.; +
Fish Cr., 6700 ft.

241. Brunella vulgaris — June - July; abundant
in Ciuegas on so slope Sugarloaf 6300-6700, +
along Santa Ana, 6000 ft.

242. Hypericum anagalloides, ^{nevadense} — June + July; Ciuega
on so. slope of Sugarloaf, 6700 ft., abundant.

243. Gallium multiflorum July 6; Santa Ana bottom
near So. Fork in dry place; rare.

244. Phacelia { ^{hispida}
distans — June - July 5; under
pines along Santa Ana near mouth of So. Fork.

245. Phacelia { ^{nemophiloides}
Davidsoni — June - July 25; abundant
under pines all along Santa Ana Valley.

246. Hieracium { ^{grinnellii}
horridum — June 29 - July 10;
Fish Creek, 6600-6700 feet; dryish levels under pines.

247. Montia spatulata — June; under pines
before ground dried out much; all along
Santa Ana valley + lower Fish Cr. + So. Fork,
especially on north-facing or shaded slopes.

- ✓ 248. Pentstemon labrosus — July 8 to 27;
 in profusion all along upper Santa Ana
 Valley & on Black oak flats along So. Fork
 up to 7500 ft.
- ✓ 249. Lotus ^{Davidsoni} nevadensis — spreading mats on
 levels & slopes of Lower Transition to head
 of Santa Ana valley, June & July — Black oak
 belt to 7500 ft.
- ✓ 250. Gilia ^{collina} tenuiflora — June to July 15; abundant
 along valley of upper Santa Ana on levels
 mostly often under pines.
- ✓ 251. Achillea millefolium ^{lanulosa} — June & July; profuse
 everywhere; edges of cienegas to dry places; around
 Sugarloaf cienega; So. Fork cienega to 8000 ft., etc.
- ✓ 252. Potentilla ^{muttalli} gracilis — June - July 2;
 fairly common near stream; mouth of So. Fork.
- ✓ 253. Calochortus ^{leichtlinii} invenustus — June; abundant
 in Black oak belt down to lower edge of transition;
 upper Santa Ana, Fish Cr., So. Fork.
- ✓ 254. Mimulus ^{nasutus} langsdorffi tilingi — June 15 - July 25;
 abundant along streams & in cienegas; So. Fork,
 Fish Cr., Sugarloaf so. slope Cienega.
- ✓ 255. Chaenactis santolinoides — June 20 - July 15;
 Common locally; Fish Cr., So. Fork; dry places under
 pines.
- ✓ 256. Senecio ^{sparsilobatus} neo-mexicanus — June; rare; Lower
 So. Fork, 6300 ft.; Santa Ana, 6000 ft.; shelving bank &
 under pines.

257. Navarretia densifolia
Lilia densifolia — July 18 - Aug.; Upper Austral
 into Transition, in sage belt; Upper Santa Ana
 valley on north side; common.
258. Silene parishii — July 18; Fish Cr. canyon,
 6600 ft.; dryish canyon side = only locality;
 evidently rare.
259. Salix bigelovii — abundant willow from
 6500 (springly) up to 9000 feet in dryish
 pockets & edges of meadows; grows in
 tall straight (nearly)-trunked groups sparsely-
 leaved except at crowns; has a decided
 grayish caste of foliage.
260. Euphorbia palmeri — June to July 8;
 abundant everywhere on dryish ground;
 Transition up to 7500 feet toward So. Fork Cienega.
261. Monardella lanceolata — July 10 - Aug.;
 abundant on dry slope in sage belt;
 Upper Austral into Transition.
262. Lupinus ^{{austroriparianus} albifrons — June - July; Dryish
 slopes in sage belt; Upper Austral & Transition;
 abundant all along So. side of Santa Ana
 to Big Meadows.
263. Sambucus — July 10 - Aug.;
 not common; clumps noted in Fish Cr.
 up to 7000 ft., on So. Fork, & in Upper Santa
 Ana.

- } Razoumofskya occidentalis
 - 264. { Arceuthobium occidentale — abundant
 mistletoe on pines (Jeffrey & yellow) especially
 young trees.
- 265. Oenothera biennis hookeri — July - Aug.;
 fairly common in meadows & edges of ciuegas;
 So. slope Sugarloaf, 6500-6700 ft.; along Santa Ana,
 So. Fork at mouth.
- 266. Symphoricarpus parishii — July 11-16;
 Canadian mostly; Sugarloaf near summit
 (down to 9000 about); around Dry Lake.
- 267. Dodecatheon alpinum — June 16 - July 16;
 abundant on So. Fork Ciuega, 7500 - 8500 ft.;
 scattering down So. Fork to Santa Ana, 6200 ft.
- 268. Erysimum asperum — June - July; abundant
 up thru Transition; everywhere; up to South-pine
 hillside by Dry Lake, 9000 ft., & same elevation
 on south side of Sugarloaf.
- 269. Ranunculus { oxyrotus
escholtzi — July 16; by snow
 back on north-west side of Grayback, 10,500 ft.
 in a few square yards of rock slide.
270. Carex preslii — July 16; 11,000 feet on
 N-W slope (rock slide) of Grayback; common.
- 271. Ribes cereum — June - July 16; abundant
 in upper Transition; along streams, etc., &
 above Dry Lake & nearly to summit of Sugarloaf.
- 272. Pedicularis semibarbata — June - July 16;
 abundant on floor under pines, thru Transition.

273. { Oxytropis oreophila — July 16; summit
San Geronimo PK, 11,500 ft. - 11,000 ft.; common on
bare gravel patches between boulders.
274. Potentilla wheeleri — July 16, summit
San Geronimo PK; common on gravel flats among
rocks.
275. Erigeron compositus discoideus — July 16;
Summit of Grayback (= San Geronimo PK.) common
in gravel patches.
276. Hulsea vestita pygmaea — July 16; sparse
on summit of Grayback, in gravel between
boulders.
277. Erigeron foliosus — July 20 - Aug.; abundant
in dryish places everywhere, especially in
Black-oak belt.
278. { Agoseris heterophylla
Troximon heterophyllum — June - July;
common in meadow at mouth of South Fork, 6200ft.
279. Gilia ^{androsacea} montana — June; extremely profuse,
throughout Transition; everywhere, especially in
Black-oak belt.
280. { Lappula occidentalis
Echinopspermum redowskii — June 26 - July;
abundant in meadow at mouth of So. Fork, 6200ft.
281. Erigeron divergens — June - Aug.; abundant
everywhere up thru Transition; tho not so
noticeable in the sage belt.
282. Cremocarya lepida — June; common in
open sandy places along Santa Ana bottom.

- ✓ 283 Veronica americana — June - July; abundant in cienegas; on So. slope Sugarloaf, 6300 - 6700 ft; along Santa Ana; So. Fork; & Cienega at Dry Lake (south-facing slope), 9100 ft.
- ✓ 284. Veronica serpyllifolia — June 26; margin of stream on Santa Ana - 6200 ft.; scarce.
- ✓ 285. ^{Alsine longipes} Stellaria longipes June 26; common at margin of stream; Santa Ana, 6200 ft.
- ✓ 286. Oenothera californica — June - Aug.; abundant along bed of Santa Ana Canyon up to Big Meadows; and up onto hill-sides.
- ✓ 287. ^{Piptocalyx circumscissus} Eremocarya micrantha — June 27; common in open sandy patches on Santa Ana bottom, 6200 ft.
- ✓ 288. Viola blanda — June 15; abundant on Cienegas at head of So. Fork, 7500 - 8500 ft.
- ✓ 289. Hemizonia wheeleri — June - Aug.; Abundant everywhere up thru Transition (to 7500 feet on South Fork trail).
- ✓ 290. Sisymbrium canescens — June 27; sparse along stream, Santa Ana, 6100 - 6200 ft.
- ✓ 291. Geum macrophyllum — June - July; sparse along lower South Fork, 6200 - 6400 ft.
- ✓ 292. Sidalcea malvifolia — June - Aug.; common in meadows, not too wet; So. Fork (mouth and Cienega at 7500 ft.); So. slope Sugarloaf, 6300 - 6700 ft.

293. Canthus corderatus — June; abundant thru Transition especially upper; Dry Lake (south slope); So. Fork up to 8000 ft.
294. Lupinus { ^{elmeri} albicaulus — June-July; abundant in Upper Transition; in Fish Cr. + So. Fork canyons + Black Oak belt.
295. Rubus parviflorus — June-Aug.; abundant in shady moist canyons; So. Fork from mouth to 8000 feet; Mountain Home Canyon.
296. Viola { ^{aurea?} purpurea pinetorum — June; fairly common; Santa Ana, 6200 ft.; Fish Creek, 6500-6700 ft.; Black Oak belt, 6400-6700 ft.
297. Fragaria californica — June-July; fruit July 20-Aug.; abundant along lower So. Fork, 6200-6500 ft.; Fish Creek, 6600 ft.
298. Gayophytum ramosissimum — June 26-July; along Santa Ana, in level stretches, 6200 ft.
299. Mentzelia — June-July 15; common in level sandy stretches, 6000-6300 ft.
300. Chrysothamnus graveolens, ^{glabratus} — last of Aug.; the abundant "rabbit brush" along Santa Ana, 7-oaks to Big Meadows, where there is a many acre tract. Apparently upper Austral + transition.
301. Artemisia tridentata — last of Sept.; the abundant sage brush; upper Austral + Transition; mostly on desert side of divide; but down Santa Ana to 7-oaks.

- ✓ 302. Solidago californica, — Aug. 5 - Sept.;
 Very common thruout Transition; Black Oak
 belt; Santa Ana; Bluff Lake.
303. Alnus rhombifolia — The common alder
 along most streams from foothills up to
 7000 feet in Fish Cr. & So. Fork canyons.
- ✓ 304. Stephanomeria exigua — July 27 thru Aug.;
 abundant among "rabbit brush" all along
 Santa Ana to Big Meadows.
- ✓ 305. Eriogonum stellatum — July 27 thru Aug.;
 common on ^{hot} hillsides in Sage belt;
 South Fork near mouth; Santa Ana.
306. Monardella odoratissima — July 27 thru Aug.;
 Abundant thruout transition.
- ✓ 307. Andibertia pachystachya
 } Salvia carnea compacta — July 25 thru Aug.;
 Common in Sage belt of Upper Santa Ana,
 6000 - 6700 ft.
- ✓ 308. Habenaria leucostachys — July 10; Fish Creek
 Canyon, 6700 ft.; Common locally.
- ✓ 309. Amorpha californica — July 15 to Aug. 15;
 abundant & representative of black oak belt.
- ✓ 310. Sedum obtusatum — July 29; South Fork,
 7500 feet on shaded canyon side under pines
 in rocks; scarce.
- ✓ 311. Geranium richardsoni — June - Aug.;
 common along streams everywhere, up
 to So-Fork Cienga, 7500 ft.; Fish Cr., Lost Cr.

312. Pyrola pallida — July 28, So. Fork 6300 ft.; only one seen; in canyon bed under cedar.
313. Oenanthe californica — July 15-Aug; common in So. Fork Cienea 7500 ft., † Sugarloaf Cienea 6200 - 6700 ft., So. slope.
314. Corallorhiza multiflora — July 15; Dry Lake, 9100 ft. Hillside beneath pines.
315. Nasturtium { ^{officinale} curvisiliqua — July-Aug.; Cienea on So. slope Sugarloaf, 6400 ft., common.
316. Sonchus asper — July-Aug.; Common in Sugarloaf Cienea 6200 - 6500 ft.
317. Inaphalium chilense — July-Sept.; So. slope Sugarloaf at margins of Cienea, 6300-6700 ft.
318. Carduus bernardinus — July-Aug.; abundant in places in Black Oak belt; a great attraction for many butterflies, such as Argynnis.
319. { Oxygraphis cymbalaria
Ranunculus cymbalaria — July-Aug.; Cienea on So. base Sugarloaf, 6300 ft., one patch.
320. Sisyrinchium { ^{leptocaulon} bellium — July; Cienea on So. base Sugarloaf 6300-6500 ft., common.
321. Aster fremonti parishi — July 28-Aug.; Edge of Sugarloaf Cienea, 6300 ft.; also margin of Santa Ana, 5900 ft.; not very common.
322. Erodium cicutarium — last of July, new crop induced by thunderstorms; common in sage belt up Santa Ana bottom } to } 7-oaks
Big Meadows.

- ✓ 323. Artemisia dracunculoides - Aug. 4 - Sept.;
 Common in semi-dry places along Santa Ana,
 at mouth of So. Fork.
- ✓ 324. Pentstemon bridgesi - July 20 - Aug.; fairly
 common along Santa Ana, 6100 ft. & in Hackoak
 belt up to 6700 ft.
- ✓ 325. Solidago confinis - Aug. 3 - Sept.; scatteringly
 common along Santa Ana, So. Fork to Big Meadows,
 near stream.
- ✓ 326. Chrysothamnus tortifolius - Aug. 3 - Sept.;
 common along Santa Ana especially just below
 Big Meadows on bottom 6300 to 6700 ft.
- ✓ 327. Tetradymia canescens - July 24 - Aug.;
 Common locally on So. Fork trail, about 7000 ft.;
 and at lower end of Big Meadows, on
 driest exposed & gravelly slopes.
- ✓ 328. Mimulus cardinalis - July 22 - Aug. 2;
 Locally common; lower Fish Cr. & Lost Cr., about 6500 ft.
- ✓ 329. Clematis ligusticifolia - Aug. 2 - Sept.;
 Common in lower Lost Cr. canyon 6300-6500 ft.;
 also along Santa Ana, 6200 ft.
- ✓ 330. Pyrola secunda - Aug. 2 - Lost Cr., 6700 ft.;
 only locality; along stream.
- ✓ 331. Castilleja { ^{montana}
murrata - June - Aug.; abundant
 along streams up to 7000 ft.; Transition.
- ✓ 332. Senecio { ^{trigonopyllus}
triangularis - July 22; South Fork
 along stream 6200 ft.; & in cienega 7500 ft.

333. Helianthemum bigelovii — July-Aug.; in
 Cieneza on South slope Sugarloaf 650-6700 ft.;
 common by running water.
334. Lilium parryi — July 18 - Aug.; locally
 common in watered canyons:— Fish Cr., Sert
 Cr., So. Fork up to 7500 ft.; So. slope Sugarloaf, 6500 ft.
335. { Ordeophyllum parishii
Velutina parishii — June-July; abundant
 along Santa Ana under pines & in open, 6000-
 6600 ft.
336. Sarcodes sanguinea — June-July; abundant
 through Transition.
337. Hypericum scouleri — June-July; common
 along streams - lower Transition.
338. Castilleja martini — June - abundant
 on dry exposed slopes - lower Transition
339. Cornus { occidentalis
pubescens californica? — July 10;
 Fish Cr. - 6700-6900 ft.; common in
 damp shaded bottom.
340. { Eriogonum trichopodium
Acanthoscyphus parishii — July 23-Aug.;
 common on open bottom of Santa Ana,
 6100-6500 ft.
341. Polygonum exile Eastwood — July 22-Aug.;
 sprang up profusely after thunder-showers;
 on levels of Santa Ana 6000-6300 ft.
342. Melica stricta Bolander.
343. Agropyrum arenicola

344. Bromus marginatus
345. Koeleria cristata
346. Agropyrum guelini
347. Sitanion villosum
348. Sitanion jubatum
349. Juncus macrophyllus
350. (Cyperus) Scirpus microcarpus
351. Eleocharis montana
352. (Gastridium leudigerum) Polygou monspeliensis
353. Juncus effusa
354. Bouteloua oligostachys
355. Salix lasiandra Benth. Very large trees in grove at So. Fork cabin on Santa Ana, 6000 ft.; also in Fish Cr. Canyon at about 6900 ft.
356. Salix irrorata Anderson. The abundant species all along Santa Ana.

357. Populus angustifolia Common
along Santa Ana from 6100 feet ($\frac{1}{2}$ mile or so
below mouth of So. Fork) up nearly to Big
Meadows, 6600 ft. In groves & of large
size perhaps 40 feet high in extreme cases.

358. Populus trichocarpa. The common
Cottonwood along streams up to 6700 ft.
in Fish Cr., So. Fork, etc.

359. Populus trichocarpa (?) The
"balm-o-gilead" growing in Fish Cr. Canyon,
7500 feet; large green barked, & smooth, tree;
very balsamy; looked conspicuously different
from cottonwood (trichocarpa), growing lower
down; leaves very much larger & fewer.

360. Populus tremuloides — Only in Fish
Cr. canyon at 7000 - 7600 ft; in elegant
groves of smallish slender trees.





