

8/8/63 ?	trace	we were away	5/28/64	.5	
8/20/63 ?	"		6/9	1.--	9AM. 24 hrs.
10/9/63	.12	9AM (night shower)	8/31	.1	" early morning
10/10/63	1.	" " "	10/28/64	.9	"
10/16	.4	(24 hrs)	10/29/64	.3	"
10/17	.12		11/1	.6	
11/4	.2	" "	11/2	.55	
11/5	.08	12 "	11/8	.1	" " "
11/6	1.5	" "	11/9	1.7	" 24 hrs.
11/12	.2	9AM-8 hrs	11/10	1.5	" " "
11/19	.12	" "	11/11	.3	" " "
11/23	.77		11/12	.8	" " "
11/24	.55	yesterday-before midnight	11/13	.3	" --- __30°
12/9	.41	21 hrs.	11/20	.25	
<u>12/18</u>	.03	24 "	11/21	.05	
1/13/64	.12		11/23	.12	
1/18/64	.7	"	11/30	.02	
1/19/64	.8	"	12/11 {water smear}	.02	-2 days drizzle
1/21/64	2.2		12/15 {water smear}	.15	
1/22/64	2	[N.5]	12/19	.8	
1/23	.6		12/20	.5	
2/15	.4		12/21	.9	
3/1[2/29]	.1	9A.M.	12/22	1.9	
3/2[2/30]	.55	9AM-[fall] before 3/2	12/23	4.77	
3/12	.48	" 12 hrs	12/24	1.2	(low 58°
3/13	.1		12/25	.1	
3/21	.65		12/26	.2	
3/22	1.00		12/27	1.11	
3/23	.82		12/28	1.12	
3[4]/31	.32		12/29	.75	
4/1	.48	"	12/30	.85	
5/1	.15	"	12/31	1.55	
5/2	.45	"	1/3/65	.7	
5/17	.1	"	1/4/65	.8	

Readings - 9 AM

Aug 10 1965 9 AM	.1"	8 hrs	Feb 20 '66 9 AM	.1	
Oct 13 "	.10		Feb 23	.15	
Nov 8 "	.65		" 24	.65	
" 12 "	.1		Mar 5	.2	
" 13 "	.5		" 9	.25	
" 14 "	.9		" 10	.15	
" 15 "	.22		" 11	.1	
" 17	.8		Apr. 10	.5	
" 18	1.6		11	.10	
" 19	.6		12	.25	
" 20	.1		May 9-10	traces	
" 23	.45		July 30, 1966	.3	
" 24	1.45		Nov 5 "	.1	
" 25	.9		" 6 "	1.3	
" 26	.3		" 12 "	.1	
Dec 11 '65 "	.1		" 15	.2	
" 12	.8		" 16	1.6	
" 23{22 overwritten}	.1		" 20	.85	`
" 24	1.5		" 21{22 overwritten}	.50	
" 29	3.2		" 28	1.	
" 30	1.1		" 29	.35	
" 31	.1		Dec 1	.15	
Jan 4/'66	.9		Dec 3	1.	?
Jan 30	2.25		Dec 4	.1	
" 31	.2		" 5	1.05	
Feb 1	[2.85] .90		6	1.4	
" 4	.75		7	.35	
" 6	.5		Jan 20, '	4.75	
Feb 19	.8		" 21	2.9	

9AM

Jan 24,1967- --	2.		4/16/67	.8	
1/25 --	.4		4/17	1.1	
1/27	.2		4/18	} .5	
1/28	2.5		4/19		
1/29	.3		4/20	.1	
1/30	1.		4/21	.3	
1/31	.2		4/22	.4	
2/10 {or 18}	trace		4/23	.15	
2/25	.5		4/24	.45	
3/10	.2 trace		5/10	.05	
3/11	} 3.4		6/1	.1	
3/12			6/2	.45	
3/13			6/3	.35	
3/14					
3/16	1.85		9/27?	trace	
3/17	.15		10/2	trace	
3/21	.3		10/3	.35	
3/28	.5		11/4	.05	
3/31	2.1		11/5	.02	
4/1	.35		11/14	.4	
4/4	.1		11/28	.2	
4/5	.1		11.29	.1	
4/6	1.8		11/30	1.5	
4/7	1.		12/1	.7	
4/8	.6		12/4	1.4	
4/10	.1		12/5	1.7	
4/11	1.2		12/6	.4	
4/13	.1		12/18	1.	
4/14	.3		12/19	.70	
4/15	.2				

1/10/1968 ---	2.7"		10/11/68 {or 10/01/68} ---	.02	
1/14	.3		10/12/"	.03	
1/15	1.75		10/13/"	.04	
1/27	.4		10/14	.01	
1/28	.3		10/23	.5	
1/29	.35 {or .45}		11/2	.2	
1/30	2.65		11/3	.8	
1/31	.2		11/5	.25	
2/16	.4		11/14	.1	
2/17	.5		11/15	.9	
2/20	.8		11/16	.05	
3/4	.1		11/22	.2	
3/6	.4		11/23	.1	
3/7	.72		11/30	.1	
3/13	1.43		12/1	.3	
3/14	.68		12/8	.3	
3/15	.3		12/9	.1	
3/16	.6		12/10	.1	
3/17	.6		12/11	.7	
3/23	.3		12/12	.1	
4/1	.4		12/14	.5	
4/2	1.		12/15	1.3	
5/3	.1		12/16	.2	
5/4	.2		12/23	.3 ?	
5/5	.3		12/24 {or 12/25}	2.0 ?	
7/20	trace		12/28	.4	
8/23	.2		[1/19]	[2.6]	
				~	
				9.6	

1969--			3/3/69--	.3	
			3/10/69	.1	
1/12-	.1 (traces earlier)		3/12	.5	
1/13	.9		3/13{or 3/12}	.8	
1.14	.7		3/16	2.	
1.19	2.9		3/17	.1	
1/20	2.		3/19	.7	
1/21	3.1		4/3	.5	{or .6}
1/22	.5		4/5	1.	
1/23	.1		4/6	.8	
1/24	.3		4/8	.15	
1/25	2.4		4/22	.5	
1/26	2.3		4/23	.1	
1/27	.3				
1/28	.9				
1/30	.8				
2/1	.1				
2/5	.7				
2/6	1.35				
2/7	.5				
2/11	.8				
2/12	1.1				
2/15	1.7				
2/16	1.8				
2/18	1.3				
2/19	.4				
2/22	.45				
2/23	.4				
2/24	.5				
2/25	.9				
2/26	.7				
2/27	.1				
2/28	1.8				
	~				
	31.1				

1969---1970 Measured at 9 AM

10/15 --	.7		1/29 - {or 27}	1.	
10/16 --	.82		2/11	.1	
10/17 --	.4		1/12 {probably.2/12}	.1	{or .4}
11/5 --	.6		2/13	.4	
11/6	.1		2/14	1.7	
11/7	.1		2/17	.8	
12/8	.5		2/18	.30	
12/10	.6		2/27 {or 2/28}	.70	
12/11	.1		2/28	1.	
12/12	.35		3/3	.7	
12/19	.1		3/4	1.2	
12/20	.4		3/10	.3	
12/21	2.7		3/11 {or 3/22}	.2	
12/22	2.1		3/12	.65	
12/23	.7		3/13	.5	
12/24	3.				
12/25	1.6				
1/8/70	.1	1970			
1/9	.4				
1/10	1.2				
1/11	.3				
1/13	.1				
1/14	2.6 lightning	storm			
1/15	1.2				
1/16	3.				
1/17	.7				
1/19	.1				
1/20	.4				
1/21	4.8				
1/22	.1				
1/23	1.1				
1/24	.2				

1970-1971 measured at 9 A.M.

Oct 18 th --	trace		1/10/71	.1	
10/20 --	.7		1/11	.2	
10/22 --	.4		1/12	1.1	
10/24 --	.4		1/13	.9	
10/31	.1		1/14	.4	
11/4	.6		2/17	.1	
11/5	.8		2/19	.3	
11/7	.3		3/11	.05	
11/10	.1		3/12	.25	
11/11	.5		3/13	1.7	
11/25	.9		3/25	.1	
11/26	.6		3/26	2.	
11/28	1.5		4/10	.35	
11/29	3.		4/14	.25	
11/30	.6		4/16	.1	
12/1	.8			1 or 2	traces
12/2	1.7		5/28 {or 5/27}	.1	
12/3	.4				
12/4	2.				
12/5	.2				
12/8	.1				
12/9	.3				
12/16	.9				
12/17	1.				
12/18	.75				
12/19	1.40				
12/21	2.6				
12/22	.3 ?				
12/27	1.5				
12/31	[1.1] .1				

Sept 19 th 1971-72 noon	.6	
Oct 20 th "	.05	
Nov 15 th " (John Willington)	1.25	
Nov 28	.8	
" 29	.1	
Dec 2	1.1	
" 3	.3	
" 5	.3	
" 9	.1	
" 10	.25	
" 12	.7	
Dec.22	2.2	
Dec 23	.2	
" 25	2.4	
to 12/29	1.1	
1972 Days and days to low in mid-		
twenties (19° --27°) heavy frosts.		
1/22/72	.3	
1/25	.5	
1/26	.2	
1/27	1.2	
2/3	.4	
2/4	1.0	
2/5	.5	
2/22	.4	
2/24	.15	
4/5	.1	
4/6	.5	
4/11	.1	
4/12	.2	
4/13	.8	
4/23	.5	
6/9.	.2	

	18.5 "	

Sept 9, 1962-

Note:- 8/26 & 9/2 my 21 quadrats restaked. Many had been partially or completely destroyed. Precise restaking not always easy.

On top of J. R. from Goya Rd. with Ron - 10:30 AM.

Weather. - thin sun, chilly autumn day.

_____ "Large hairy" tarantula at #16 walking along in meandering or indirect way, but not avoiding even small clumps of dry grass. It happened to hit toe of my moccasin and ran up of one side along this. Intent to explore further made me interrupt this.

_____ Later, pale 1/2" straw-colored spider was watched on and about harvest ant nest on serp. by chaparral on Stew Brand's tarantula -transect. This spider was carrying "dying" soldier ant which quieted as we watched. This on the glume and lemma blanket. Only 2 ants seen. Many ant heads lay about on ant hill - dry and empty.

_____ Barn swallows - above site 4 to 6 low over serp and serp chap. (not common sight)

_____ Redtail - 1 over serp E of line - same last week 9/2/62.

_____ Checked quadrats -

_____ Vulture - over top of ridge.

_____ ~~Quad info in quad notes as usual~~ }

Sept 16th 1962 _____

- Checked quads for 3½ hours. Info in quad notes- hot day -

Sept 24th 1962 -

On line above from Goya Rd. 9:10 A.M.

Weather:-Low fog- visibility not over 1000'. sun at 9:50 with

Air clearing- warm late summer day.

-Heard in fog - Jays }

- Nuthatches} 100 yd E edge of J.R. Reserve ---

- Quail }

-Noise:- The drone of frequent airliners frequent, smothering all J.R. sounds. Valley noises evident especially from Holyoak, aside of Proj. M. bulldozing for buildings. Sometimes the noises were insufferable.

-Rumex obtusifolia- horizontal branching from divaricate stems and the blackish brown of the dry plants makes these conspicuous in pale dry grass off serp. Top of ridge. It is more abundant now.

-Juncus patens- conspicuous in swale from below #21 to S of #20 in low area mostly- holding seeds & to 18" tall E to S of #20- shorter, about 12" below (where I would have expected it to be taller).

-Cordylanthus N.E. of serp (and elsewhere) scant this year as compared with other years-and this year depauperate. 6" plants common with old blooms-Few to 6" where Ron & I collected a couple of years ago in encl. Area.

-Hemizonia - healthy this year - slender, widely branching, - many blooms. 70' of #16 off serp plants much more dense and luxurious - taller than on serp (to 25" -[serp-22"]- spreading to 26"). This is exposed place - not prevailing in quite the same way elsewhere.

-Ants- on burn 20' towards #13 from #15.-reddish black to about 1/8" soldier larger. None over 24" from 1/4" hole in serp. --carrying seeds.

9/24/62 - (cont.)

- _ Stipa pulchra on serp - some showing green now to 1" plus.
- _ Cal Woodpecker - 2 in [aprons] in dome oaks - flushing possible
- red bellied hawk - (400' without glass. Bird quickly out of sight)
- _ Blackbirds - 3 over #17 to E
- _ Flicker - 1 to dome oaks
- _ Thrasher (possible [worker]) - in brush above #5.
- _ Cordylanthus rigidus - more than ever - extending range in S. swale
- _ Corethrogyne - patch top of S. swale growing & more dense
- 1-last bloom.
- _ G. C. Sparrow - 1st of season - [seasonal] 1st notes heard in [our] creek.
- Several first notes heard from W.dome - six possible
- migrants [nervously] south from W. dome [p.o.]
- Off J.R. 11:20

Sept 30, 1962

- At great inlet. Searsville Lake alone 10:30 A.M. D.S.T. - to SFCr
 _ Down S.F. Cr. Bed to Biol. Reserve, then up to fence and along top of
 N & W bank on trail.
 _ Weather: clear, warm, quiet, balmy- to 80+°.
 Rain 56 hours ago _ .12"
 _ Xanthium - dense bed from laurel by road to tules on N. side of inlet
 -20'at widest x 100'. Only scattered here last year.
 Blooming and pods _
 _ Heliotropium - all green and blooming mat - well above water.
 P.O. red in inlet - otherwise all is fresh and green.
 _ Searsville higher than anytime in Spring 1961.
 _ Salix hindsiana - So. End of lake - many new green shoots.
 New _ Nicotiana bigelovii (Torr.) S.Wats. - Indian Tobacco - 1st seen
 collected - only 1 plant - 30" tall, branched, many
 large white blooms - So side of great inlet in sandy bar
 about 100'from edge of lake. In Heliotropium mat. Typha,
 Xanthium, Tomatillo, Gnaphalium palustre - within 4'.
 New _ Lycopersicon esculentum Mill. - Tomato. (The real thing) to
 18"-with one bloom, 6'from above site on sandy bar in shade
 _ Vulture - flushed in S.F. Cr.bed from dead possum at point below
 E most redwoods below Searsville Rocks. This about matted,
 dessicated but recent carcass. Thin Maple-Alder cover
 -visible from air. Flushed from behind boulder at 100'away
 from me. Flew to Alder up 20'some 50'downstream.
 Flushed again as I approached to 1200'- Flew downstream.
 _ Melissa - blooming in Cr. Bed
 _ Trientalis - still green in S. R. shade.
 _ Fairy bells - " " " " " .
 _ Aloes - no dry leaves " " " - few elsewhere.
 _ Buckeyes-½ size fruit green-nearly leafless but with green on some N.side S.F.Cr.
 elsewhere - almost leafless - no green.
 _ Prunella patch by S.F. Cr. Quite dry, but some green on leaves
 _ Maples- vary in green with exposure.

9/30/62 (cont.)_

- _ Horned Owl - flushed from blue oaks in grassland E of tiger lily site- N. of S.F. Cr. Top of bank. Owl flew E 200' to dense valley oaks near creek. Flushed Again- flew S.E. to Jasper Ridge woodland.
- _ Live Oak - (*Q. agrifolia*) - d.b.h. (from high side)-3 1/2' branching up 12' to 15'-about 100' downstream from tiger lily site- W side of S.F. Cr. Near top of bank where S.F.Cr. goes N. Largest *Q.a.* on Jasper Ridge? The bark is surprisingly smooth.
- _ *Polygonum aviculare* - prostrate - bet. road and serp. cr. above inlet. Quite in contrast to erect C.M.Cr. bed spec. coll. 9/12/59
- _ Band-tailed Pigeon- 1 towards mountain down grand canyon of serp. cr.-
- _ Heron - (G.B.) from Searsville Pond over swamp _ 10:30 AM
- _ Sharp-shinned Hawk - wheeling over road S. end of Searsville canoeway.

Oct 8th 1962.

On J.R.- south base N.R. alone 8:45 A.M. (D.S.T.)

Weather-increasing drizzle-fog-visibility less than 2 miles-Sun at 9:45 AM
 _Cal Jays- 5 in 75' radius, 100' N of end of Mantilla Dr. 2 in [scuffle] in
 15'live oak briefly, followed by "screams"- 1 flew 50'W
 the other joined by one (now "screaming") from 75'So. Others moving
 about in area, positions [obscured]. Two heard in N. Cr. Canyon from
 ["deck"]on top of N.R. Two also heard S.W. Jay calls to be heard at
 all times throughout to C.M.Cr. There must have been at least 20 on transect
 between C.M.Cr. and Nolan Cr. Many with acorns in mouth. On S. trail
 150'outside laurels 8 seen or heard nearby at one time. In C.M.W. 5 in sight`
 was usual. One with 2 steller jays on two occasions. N. trail 100' inside
 C.M.Cr.-S. trail 150'outside laurels. Cal Jay-[CMF] to mid SW [cherry dome]with
 acorn.

_Quail-in scattered family groups in wooded areas. Heard s. foot of N.R.

-opp sides C.M.Cr. calling, close to C.M.F., also some in center, and
 2 groups at least near (within 150'CMCr. One ♂ crossed trail
 slowly 20'N of me (150' outside laurels on So. trail), clucked to call 3
 nearly full grown across. Later, after circling under brush to W. to S.,
 perched on dead elderberry by trail up 8'-30' S.W. of me. Quail scattered
 throughout So corner part of line, in 2 or 3 groups of family size.

_Fox scats- abundant. Extensive "development" of lands may be forcing
 foxes onto Biol. Res. Locations:-1/2 way up S.W.N.R. on S.E. trail
 (prune seeds)

: -50'of trail in chap. top

N.R. (7 prune seeds, also grasshopper mandible-some rodent hair
 Also seed tests and whole leaf, prob. C. cuneatus.

: -30'of above site

with 5-8 prune seeds (not pulled apart). :30'NE of above

: -50'above cut-off- 5 prune

seeds (prob. Less than 2 wks old)

: -100'W of cut-off-5 prune seeds

: -edge of brush bet N & S. trails

Lower C.M.F. - like above (with prunes)

: -C.M. Cr. b ed- fresh scats

Wild coffee berry only.

10/8/62 (cont.)

- _ Wildcat scat - 110'S. E] of "[desk]" - nothing but hair - either woodrat or rabbit.

- _ Buckeyes - holding in green pods - mediocre crop., prob below or about average.
- _ Animal trails - evident in grass of "savannah" - some to nearly ½ as broad as horse trails. Most are much smaller, but well traveled - not meandering, but direct. Sometimes skirting brush areas out to 20' - top of N.R.
- _ Flicker - 2 heard near cut-off, one of those to top of N.R. in blue oak, answered once by the one at cut-off. Later 1 from upper C.M.F. oaks to CMW calls - then followed by what appeared to be younger bird to valley oak near edge but within C.M.W. Shortly - one of these returned to C.M.F., landing low (up 5') on blue oak above CMF fence 100'. One outside edge of laurels later. C.M.W. The same birds may have been involved on above occasions, tho others were heard in distance.
- _ Horned Owl - 4 1/2" downy feather 30' N. of desk - top of N.R. - 6" tertiary found near (W. end)[gran pt] on trail.
- _ Adenostoma - red everywhere with abundant holding achenes and masked red-brown [leaves].
- _ Skunk-(striped) - heavy traffic on S.W.N.R trail. In spite of recent horse prints, skunk tracks cover the trail also So. trail C.M.W.- common.
- _ Calif. Woodpecker - 1 - twice with acorns to top of largest val. Oak in upper C.M.F., further bird present. [-]2 in top of dead fox-oak - 1 storing acorns (could be same seen in upper C.M.F.)
- _ Cal. Thrasher-1-[chercks] - edge of chap. Upper edge C.M.F. -1- in coffeeberry near baneberry site - 40' inside C.M.W. - So. trail.
- _ Spurred Towhee - 4(prob.) at least on [line] - S.W.N.R., 1 in p.o. upper CMF. (in chap edge with br. Towhee. 2-150' outside laurels, So. trail C.M.W. 1-So trail near edge CMW. as usual.

8/10/62 (cont) -[prob. 10/08/62]

- _ Br. Towhee - edge of chap. under live oak upper C.M.F.
- 2 " " C.M.W. 40' inside, by So. trail.
- _ Vulture - 2 over Portola Valley_1 of these X over W.J.R.
- _ Cordylanthus - eliminated from upper C.M.F.
- _ Grindellia rubicaulis - common - S. facing slope S of trail in
upper C.M.F. - completely dry. Phyllaries not at all
reflexed as are those W. of S.R. by road.
- _ Hemizonia - only 1 in upper C.M.F. (seen) - scattered along fence and
trail across C.M.F. and extending down slope part of
lower C.M.F.
- _ G.C. Sparrow - few at end of Mantilla Dr. Few notes heard near
edge C.M.W. ___ still not common.
- _ Sharp-shinned Hawk - from W. C.M.W. to over lower C.M.F. circling
up 70' - sometimes in circles as small as 20' dia. Rose
higher - drifting off E.
- _ Coffeeberry - ripe fruit abundant.
- _ Steller Jay - 2 near Sharp-shin west side in C.M.W. Seen while
in search of strange, strong call heard several times -
prob. Steller Jay in view of recently heard wide digressions
from standard vocabulary. These 2 had acorns, and became
involved in harangue - prob directed at me joined by 1
Cal Jay - 2 later 150' outside laurels on So trail -
calling - also Cal Jay
- _ Rabbit - 1 near N. trail entrance in willows and brush.
1 where N. trail meets. Trail in open nearly leafless p.o.
- spect _ C.M.W. laurel arewa maturing fast, and becoming dense woodland
willows, cottonwoods, boxelders.
- _ So trail over 150' outside of laurels, 50' from where trail bends, base of grass pt.
- _ Chipmunk - 1 feeding on p.o. berries 15' So of me - much barking
and lateral lashing of tail.
- _ Fox squirrels - 2 heard towards gras[s] pt.
Much bird activity as described in above - here
- _ Bees - very active on Baccharis - large activity edge of CMW, down CMF.

8/10/62 (cont) -[prob. 10/08/62]

_ Tracks on So trail C.M.W. bet grass pt. And C.M Cr.

- Coon
- Fox
- Wildcat (not often seen)
- Skunk (striped)
- Deer
- Squirrel
- Many Jays & Quail

_ Possum tracks - orchid site opp end of grass pt. In trail -
not many seen.

Offline - 12:15 noon -

Oct 14, 1962

On J.R. foot of N.R. 9:30 AM with Chas. Jeff. & Pip (Sheperd)
To C.M.Cr. and Nolan Cr. "delta". Off line 11:30.

_ Weather;_ broken clouds- sunny-occasional N.W. stir.

Rain- 24 hrs. 3.23"- 72 hrs. 8.5".

_ Coffee-berry - many fruit down, but large crop holding.

_ Cal Jays- never more than 2 in sight- C.M.W. Much fewer
than last week.

_ Quail- family groups- 1 heard So. base of grass island where
trail turns toward So., 1 heard 75'W. of above site, 1 heard
100'So. of 1st site.

_ Birds - generally few about - all was quiet.

_ V.G. Swallows - 2 high above C.M.F.

ater _ Rivulet near gate, foot N.R. Lower C.M.F. marshy. So. trail under
water from entrance to beyond baneberry site, also for about 200'
from near grass isl. To within about 40'of C.M. Cr., because of
wear in trail. C.M. Cr. running muddy 8'wide at narrowest.
It had overflowed to deposit from 3"to 6"of silt to 40'from
bed near So. corner of line. Buzzard oak with water running
All about it. Silt deposited into W. corner lower C.M.F.
Nolan Cr. in strong flood over trail out of Nolan Cr. canyon
to 100'

spect _ All is still green- even Leatherwood and Blue Witch. - Black oaks
on Mt. side with many leaves blown down. Some willows fallen -
trail -down Nolan Cr. In shade, p.o. still largely green. Few
limbs blown down in storm in C.M.W.
Spring Hill on Mt. summit showing green in draws.

_ Lactuca serriola - blooming- So. facing slope N. edge of line- C.M.F.

_ Erodium- to 1/4"- above slope - leaves of plants often meeting - also
in lower C.M.F. to about same size on slope

_ Geranium molle - with Erodium - [down] C.M.F. on slope.

Oct 21st, 1962

On J.R. from Goya Rd. 8:30 A.M. (D.S.T.) - ON LINE ON SERP. 8:50

- _ Weather:- dense but shallow ground fog visibility 200' from gate, but sun broke thru. Fog holding in hollows, but Mt. tops in view. Fog mostly dispersed by 9 - no [stir].
- _ Flickers - 4 heard or seen bet. gate and line.
- _ Larks - much jabbering song - possible est. of territories? One from little dead oak area near round end. One from top of tall oak nearest to tumble down oak. One from old corral area. Two or three in rapid, scrambled notes in dome oaks. One from N.W. side of line on serp.-5 or 6 in group lower N.E. dome not in song.
- _ Doves - 6 on little dead oak near round end. (1 facing E., others facing W.). 12 flushed from midline on mid. Serp. Ones and twos flying about on serp. in fields - not a Real flock.
- _ G.C. Sparrows - notes heard from both sides of serp. dome and N.W. blue oaks
-sev. heard in p.o. 200'W. of top of dome (Quad#11).

Burn

- quads- _ Plantago erecta (the "grass" on serp.)- to 1" off burn, dense - to 3/4" on burn. Much more dense off burn.
- #15 (burn quad) - sparse - several areas where soil is present are 3" squares where no growth appears, and frequently plants (where they appear) are 1" apart.
- #16. Only 1-2" square found (of thin soil) without plants, and nowhere were plants 1" apart. [Here is hair] sort of density.
- The 2 above quads are not the best for comparison perhaps, as #15 has always been less productive in plants - but in general the above prevails.
- _ Grass (annuals) some to 1½" off burns. None on burn.
- _ Dicots - 1 to 2 and 3-4= prevailing size ratios on & off burn.
- _ Stipa pulchra - in good shape on and off burn.

10/21/62-(cont.)

Burn(cont.)

Stipa pulchra (cont.)-

-Off burn *Stipa* plants are much more crowded by standing dry stuff than on burn plants. On burn plants are no taller (to 4") but have more living stuff per plant.

Met Dr. J.H. Thomas near Quad #15 told me of Dr. Raven joining Stanford faculty.


- Cal Jays - 4 atop leafless p.o. patch 200'W. of top of dome (Quad 11) - same p.o. patch with G.Cr. Sparrows-
- *Erodium botrys* - leaves to 5/8"- top W. dome (some to 3/4")
- " *cicutarium* " " " " " " " " " " " "
- *Tillea* - .5mm where showing.
- Sage - top of Dome - better off than ever.

Quad - Quad #11

- Burn -
 - *Erodium botrys* - dense, largest leaf 1"
 - " *cicutarium* - about 1 to 10 ratio with *botrys*.
 - B.E. grass -10 per sq. ft.? to 2"
 - Grass - sparse to 1 1/2" (no *Stipa*)
- Off burn
 - *Erodiums* - both sparse - to 1 1/4"
 - B.E. Grass - more abundant than in burn, and to 3"
 - Grass - dense, to 4"

- Quad #12

- Grass to 2" apart. Prob. *B. rigidus* to 5" (one).

- Dicots - (no *Erodiums* present) - to 3/4" 

- Burn - Almost all cinders gone or obscured excepting on N.E. Dome.

- Gypsum line near #14 (big boulder) showing dark shadow of rain powdered cinders and green film to 1/2" - mostly much less. This area superficially looks awfully bare.

- Poppies to 3"- above site - same as last Sunday on S. facing

- slopes of upper C.M.F., N edge of line./ - Poppies not
- affected by fire.

CaO

10/21/62 (cont)- serpentine

- Lomatium - to 3" mid serp.
- Stipa pulchra clumps are as hard to separate as are Adenostoma clumps.
- Nuthatch - heard in dome oaks.
- Aside of litter (much) - and few dead limbs down - no trace of storm of 10 days or 2 wks ago in J.R.
- Band-tailed Pigeon - 1 across top of ridge up 20'- then gap W. of Kieth oak
 - 1 tail feather and 8 down feathers found together on line - mid serp.
- Robins - 11:35 - 20 flying in open formation and "chucking" top of J. R. - N. to S.
- Tarweed - beat by rain - drying and with few blooms showing November aspect.

-

`Nov. 11, 1962 -

On J. R. reserve - foot of Nolan Ridge alone 7:30 AM.

Weather :-clear, still. sunny - heavy dew.

- Quail - 56 on Westridge Dr and shoulder in 3 groups at CMG Cr.
- Cal Jays - with acorns. Frequent along Westridge Dr. at above area.
- also common thru out.
- Deer - 1 doe flushed 50'inside reserve in Coffeeberry S. of trail along foot of N. R.
- Aster radulinus - 2 blooms left - formerly several just below oak border below "cut-off" - in same area as Grindellia earlier - new basal leaves (on other plants) [to] 2".
- Fox scat - stomped by horses - 60'above cut-off - 5 Prunus ilicifolia seeds.
- Sp. Towhee - edge of chaparral (also under blue oak) W.W.N.R. gully opp. Above site.
 - 1 lower Nolan Creek
 - 1 edge C.M.W.
 - 1 mid C.M.W.
- Buckeyes - pods not split yet - poor crop, or well below average.
- Leatherwood - 1st bloom - 30' E of "desk" - also few new leaves (earliest previous record late December, I believe) conspicuous when hit by early sun.
- Potentilla - leaves to 9". below cut off - [N.C.] and elsewhere.
- Grossularia - leaves 1/2"across= top N.R. near desk - over 1" elsewhere.
- Toyon - berries green with slight orange to bright red - S.W N R.
- Fox Squirrel - down blue oak 10'S.W. of base of "desk" on ground to limb, and over side of woodrat nest in nearby p.o.; down p.o. branch to closest blue oak base - then up blue oak on probable route used by woodrat occupant.
- Woodrat - nest base of "desk" - obliterated - no trace, but hollow insides show much use by small animals.
- Thrasher - song - top of N.R. chap. - 1 lower Nolan Cr.
- Flicker - 1 flushed from ground, firetrail top of N.R., flew off but came back to land again in 2 min., and veered off upon seeing me, landing atop nearby chap. and called.

11/11/62 (cont) _

- Cal Woodpeckers - heard in large val oak upper C.M.F.
 - 2 in laurel over C.M. Cr.
- Cal Jays - common. C.M.W.
- Steller Jays - 2 at least near C.M. Cr.
- C.M.Cr. - running clear - 2 wide.
- G. C. Sparrows - few heard today - but scattered thru C.M.W.
- Blue Elder - seedlings with new leaves to 6'.
- Coffee berries - So trail C.M. W. few ripe berries still holding -
- Laurel area C.M.W. being taken over by *S. lasiolepis* which in turn is being invaded or in early displacement by *S. lasiandra*
- Brown Towhee - 2 in S. corner of reserve by C.M.Cr. in brush.
 - 3 or 4 - edge of reserve at Mantilla Dr. with 1 Sp. Towhee
- Wren - N. trail near sharp-shin nest site - heard-
 - So. trail, S. corner of reserve or line - heard-
- Anna hummer - buzzed to within 3' of me - mid - S facing
 - cherry dome
- Hairy Woodpecker - (prob) - high in bee tree - couldn't see.
- There was considerable drip early this morning. The soil in woodland areas is moist - but warm -
- Meadow larks - 11/4/62 - top of J.R. - East edge of line - few 100' S.E.
 - a flock of about 42 -

Off line 9:55 A.M.

Nov 22nd 1962- Thanksgiving Day -

On Jasper Ridge at end of Mantilla 11:40 A.M. - Went along side Hills to Searsville, returning along swamp trail.

Weather: - Thin sun - high cirrus and cirro-stratus clouds - N.W.[stir]

- Nuthatch - in oaks bet. foot N.R. and so. trail- Tho not always reported, these may be heard somewhere in oaks on every trip.
 - Cal Woodpecker - quiet - high in upper C.M.F. Val. Oaks.
 - Aud. Warbler - 2 high in Val. Oaks above - 1 to C.M.W.
 - B. Wren - 1 in p.o. up blue oak, upper C.M.F., joined by another who chased it out - to C.M.W.
 - 1 Br. Towhee - p.o. under upper C.M.F. oaks.
 - Calif. Jays - 2 or 3 in and about C.M.F. - quiet generally.
 - Live Oaks - to 16" scattered along lower border of C.M.W. east of line. Advancing since cattle removed - and taking advantage of disturbance not followed by Instructions.
 - Sharp-shinned Hawk - circling over C.M.F. gully - up 150' rising and drifting to S.E.
 - Aud. Warbler - 2 flew above hawk above about 30' - and turned.
 - Hypocheiros radicata - 1st bloom - only one - 18" tall by trail at edge CMW - E. of line
 - Buckeyes- beginning to fall - few - most pods not open.
Variation in yield spotty, as in lower Dolan Cr. seemingly not a product of exposure.
 - Coots - 2 on Searsville Lake - no other shore or water birds.
 - Hyla - 2 in Searsville Swamp - heard
 - Cricket - single one in Searsville Swamp - also single above N.C. delta.
 - Chickweed - up everywhere.
 - Sparrow Hawk - from field above C.M.Cr. to C.M.Cr.side oak 700'
SE of line - (seen from road on return home).
- Offline - 1 p.m.

All was very quiet along J.R. after time has passed. The swamp was actually balmy - with nice smells.

Dec 9th 1962

On top of J.R. from Goya Rd. N.W. to and about "line" - 8:30 to 9:30 A.M.
Alone.

Weather:- dense fog. (but not thick). Visibility never over 100 yds.

- *Ceanothus cuneatus* - first blooms. So facing edge of chaparral
on corner next to blue oaks- bloom under blue oak
branch 3' above and covering.

HOH - Drip - In hilltop oaks about "Keith Oak" - drip audible from out of
sight - or 100 yds - very noisy and crackling on dry leaves in
green grass below. This not heard elsewhere, the noise singular.

- Br. Towhee- 2 heard near [round]encl.

- Larks - occasionally seen

- Woodpecker (Cal) - from tumble down oak

- *Orthocarpus* - certain now to 1" - (red foliated one along road)

- Gophers - much activity S.W. of road on line on serp.

- G.B. Goldfinches - few occasional overheard on line on serp.

January 6th 1963 -

(1st trip since Christmas)

- On J.R. - foot of N.R. from Mantilla Dr. 1:15 P.M. -Walked to Searsville and back along edge of swamp - and thru CM woods on return - off J.R.2:45 PM

Weather: - clear, sunny, warm, few cirrus clouds- slight N stir at time.

Searsville Lake (and pond at 1 PM)

- Ruddy duck - one [one] each
- Coots - six or eight on each - 1 at Searsville Lake with 6" dead leaf or stem in mouth -
- Ring-necks - 30 on S.P. 1/4/56 -
- Wood ducks - 2 on W. S.P. (Row) 1/1/63
- Townsend Warbler - 1 in Dogwood - Dausel Cr. at home - 1/1/63 feeding lower than chickadees, and going to ground.
- Brown Towhee - 1 at baby blue eyes site - upper C.M.F.
- Wren-tit - brush N of heron rookery - heard -
- Vultures - 2 high over Searsville Rocks.
- Downy Woodpecker - in [small] tall willows by trail in Swamp 150 yds from S.L.
- Salix lasiandra - some bare, but many still holding top yellow leaves.
- Song Sparrow - } Searsville Swamp at above woodpecker site.
- Sp. Towhee - }
- Creeper - in live oaks - edge of Swamp by willows - and just W. of great lupine field.
- Corte Madera Cr.- running well - main course just below Nolan Cr. close to trail. It pretty much follows base of S.W. facing slope. Water rewaches into grassland along brush line from "vernal pool" to corner oak. Vernal pool joined by rivulet across end of lower C.M.F. - Standing puddle into CMW
- Nolan Cr. - not running.
- Fox ? - 100' W of val. Oak - N. bend of line, lower C.M.F. Heard noise on dry leaves under live oaks - saw long, low bushy tail disappear. Old Fox and deer tracks 30' W. by C.M. Cr.
- Sp. Towhee - under live oak beneath N. bend Valley oak - lower C.M.F.

1/6/63 - cont-

- Cal Jays - 1 top of chap - N. Nolan Ridge - quiet - profile @ 2000'.
 1 lower C.M.F. oaks
 1 upper C.M.F. oaks - to Baccharis in gully.
- Sapsucker - N. bend of line, lower C.M.F. in live oaks - flew to
 N. Cr. delta.
- Flicker - to upper C.M.F. oaks from lower N. Cr. area
- Elymus - moving into lower part lower C.M.F. and along live oak.
 border N.W.
- Thrasher - heard - upper edge upper C.M.F. in chaparral.
- Coon tracks along C.M.Cr. in CM woods - near buzzard oak
- Possum " " " " " " " " " "
- Plants - all are up excepting late summer plants - Navaretia, and
 orchids (grass pt.).
- Laurel - drowned near buzzard oak with sprouts to 4' from lower limbs.
- Oyster mushrooms - no sign yet - C.M.W.
- Boisduval (small) Sulpher - near heron rookery from lupin field.

January 20th 1963.

On Jasper Ridge with Ron - from Goya Rd. - 10:00 A.M. - to 1 -
Weather: - clear - cold - temperatures going daily into below 28°.

Trip to E. serp, W. to round encl. by the "backway" - across serp to p.o. charcoal pile - to trough, and W. to above heron rookery- Return to top of ridge and to car by "road".

- Indian Warriors, scant and somewhat lax from water loss - Many up thru ground.
- Fox scat - near 2nd encl. from E. Border of reserve - entirely of Toyon berries - some almost whole, showing poor efficiency.
- Linanthus - plants up to 1" on serp near Laz. Bunting site - dense.
- G. C. Sparrows - few seen throughout - rarely 10.
- C. cuneatus - buds showing white - 1 branch blooming in sun by trail - 150 yds. W. of trough.
- G.B. Goldfinches - flock of about 15 in oaks high above heron rookery.
- Heron rookery - about 15 old platforms visible in leafless Cottonwoods - no heron activity.
- Thrasher - 2 only heard - 1 - 200' W. of trough, 1 - 200' E. of old corral.
- Grass - near laurels south of dome showing wilt - evaporation in warmth of days, but cold ground preventing absorption (Ron) -
- Erodium botrys - forming large red-patches still - but more restricted than previously.
- Water running below willows - and standing in swale, but elsewhere none on top - even the soles of boots and keds were dry throughout.
- Willows - in swales (Salix lasiolepis) - 1st bloom.

Jan 26th 1963

- Along N. side Searsville Pond - 11:15 - 12 -
- J. R. from Mantilla 12:10 - 1:30 about - up N.Cr. to heights above heron rookery alone
- Weather: - max temp 40°+ overcast of max. density for here, beginning at about 2000' descending to 1200' at midday. N. breeze intermittent.
- Ring-necked ducks - nearly 200 On S.P. At 11:50 there rose in 3 flocka successively, circled and flew to lake apparently leaving perhaps 4 or 5 behind. Not flushed - no evident reason for departure. These had been in open mixed flock scattered on pond. Later seen in So. S.L. from hill above heron rookery.
- Ruddy ducks - about 20 with above - some left with Ring-necks when they flew.
- Canvas Backs - 30 to 50 - mostly S.E. end of S.P. keeping either to themselves but sometimes mixing with above.
- Coots - few, about 15 to 20 on S.P. mixing with above.
- Buffleheads - none today - perhaps 10 2 days ago on S.P.
- Buzzard - in past 3 weeks 1 or 2 have roosted on bare redwood top by old Co. Rd. at Alembique Cr.
- Live Oak - largest near S.P. outlet toppled in Autumn wind - Storm and rain. Most roots not exposed. Leaves full and green.



- S.P. - [long] full ← ground. {This may live for awhile 26" d.b.h. Many see things about - As pond fills, live oak opportunities should increase.
- Robins - 20 overhead to So into Portola Valley.
- Buckeyes - many still on ground, Nolan Cr. "delta" area - some - sprouting.
- Montia - abundant (above spot) - no perfoliate leaves - all basal
- Trillium - no trace " "
- Nolan Cr. - no water - abrupt bend to S W caused by hardness of "green-wacky" formation from cr to top of hill W.N.W. Stone appears cherty - serp color.

- Br. Towhees - 10 seen in ½ mile in grass near brush - So facing slope above C.M. Swamp.
- Fox scats - 5 sets on above hillside - all entirely and exclusively Toyon.
- Horned Owl - flushed from live oak to live oak up buckeye canyon near Dinah's puddle above heron site. Little ditch with running water.
- Herons - no activity at rookery. Yesterday at 9:30 AM, 1 seen in high flight from N. across Sand Hill Rd and across N.W. J.R. in direction of this site.
- Flickers - 2 flushed from ground 50' up talus field, trap area - rocky Eriogonum area.
- G.C. Sparrows - only 5 seen - 200' above above site.
- G. B. Goldfinches - few in oaks high above heron rookery site.
- Linnets - 20 to N Cor oak, lower C.M.F.
- Wildcat scat with mandible of woodrat 200' W of N. cor. Oak.
Sometimes I think fox leave scats on wildcat scats. Such a possibility found by trail, edge C.M.W. just So of line. The scats were different and seemed of slightly different ages - several days old.
- Hutton Vireo } by C.M.Cr. brush border below great lupin field
- Sp Towhee }
- C M Cr. running well
- Cal Jays - 4 or 5 heard and seen on hillsides and along C M Cr from Mantilla to great lupin field

Feb 10th 1963

On line below "cut-off" 11:15 AM alone

Weather:- complete overcast - light rain, clearing about noon; broken

Clouds, sun, N.W. wind following.

Rainfall 2/8 - 9AM - .18"

2/9 - "2. "

2/10 " 1.4"

- Dodecatheon hendersonii ssp. Cruciatum - (4 merous) - 1st blooms prob over 1 week - at usual 1st bloom site on line [on] grassy slope above trail and 50' above "cut-off". 1 flower 5 merous on stem with 2 4-merous flowers.
- Cal Jay - 1 at "cut-off" - 1 top of N.R. 1 at bee-tree area - frequent throughout to Searsville Lake.
- Hound's tongue - 1st bloom - to 13" near bottom of gully 50' above cut-off. - Only bloom seen.
- B. Wren - song in chap - 100' N. of cut-off, 2 on line N.E.N.R. heard frequently thruout S W J R area.
- Vulture - 1 flushed from top of large dead val. Oak, near top of N.R., N.W. edge of savannah- Few id.
- Buckeye - buds breaking, top of N.R.- few seedling or sapling leaves to 4". - No leaf buds breaking elsewhere on S.W.J.R. or in gullies - Large leaflets seen last Sunday on S.W. coal-mine Ridge high.
- Cryptantha hispidissima (Cleveland's C.) or Microstachys - prob former - with several full leaves - common - trail in chap. top of N.R.
- Sambucus - leaf buds breaking - N.E.N.R.
- Nolan Cr. - running - 4' to 8' across - turbid.
- Bugle Currant - leaves ½" across. N.Cr. shelf, SW side.
 - Toyon berries - still conspicuously holding on - thruout.
- Hyla - at N. Cr.
- Red-tail Hawk - flying w - cherry dome towards Searsville.
- Thrashers - 2 in song on line - N.E.N.R. - few heard elsewhere
- Wren-tit - 1 " " " " " " " " " " " "

2/10/63 (cont.)-

- Grass on hillsides to 10" + or - throughout.
 - Willows in Searsville Swamp - entirely leafless -
 - Salix lasiandra - beginning bloom in swamp - some tops
Quite yellow as seen from hills above.
 - Ducks - about 200 on S.L. - Ring-necks
Canvas backs
Ruddy
Lesser Scaups - prob.
 - Coots - few about lake, and at edge -
- Bullfrogs - several jumped into water, edge of swamp
- nearest lake-
 - Herons - 4 on platforms - 1 lying in nest - visible only
from hill above
- 2 flushed from top of dead oak on line near
lower W. corner lower CMF, w of vernal pool.
- Sparrow hawk - from field above heron nests to ½ mile W.
 - Flicker - trees in " " " " "
 - G.B. Goldfinches - chap near oaks above S.L.
 - Lupins - none noticed or evident plants in field above heron nests.
 - Stellar Jays 1 heard mid CMW.
 - Song Sparrow 1 " " "
- Amelanchier - NENR - no leaves yet showing.
- Water- All trails with standing or running water - even in chap.
- Nolan Cr. - from N. Cr. Canyon to "Delta" - full of shifting
bars and channels. Sediments in places to 2', channels
in flood about 3' deep. Delta with 200' wide alluvial
fan. Water's main course W. downtrail.
 - S.L. - full and prob long overflowing.
 - C.M.W. on line " Vernal pool" full in low area along whole
W. part. lower C.M.F. - 10" silt bar along W. bordering Baccharis.
C.M. Cr. at buzzard oak - over 150' wide - new shifting channels
throughout with 24" of silt over 100' from present water
courses. Swamp very unstable - much tree drowning
Off line & ridge 2:30 P.M.

Feb. 17th 1963 -

On top of J.R. - to E serp - to Stew Brand's tarantula site
and back to Goya Rd. - 12:30 to 3 with Stew Brand, Dick & Ann Raymond -
Weather: - clear at noon - thru sunny, clear, and beautiful.

Yesterday afternoon .2" rain.

- Eriodictyon - 100' from Westridge border (Mr. Henry's) - advanced
into field about 25' from chaparral (sage) border - scattered
few - 12" to 26" - since cattle removal.
- Sage - thickening into field - above site.
- Pedicularis - more bloom on way to E. serp.
- Lepidium nitidum - much (full) bloom on serp throughout also pods.
- Dodecathion clevelandii patulum - bloom on serp - few,
but prob 1 week - perhaps more - scattered W of
Hodge oak - promising abundance.
- Hyla - bright green - serp bet dome & hodge oak - grass &
standing water - another later found W.
- Larks - normal flock community seen rising & landing
- Blackbirds - 2:30 - 2. E over line over serp
- Pigeons - 20 (about) - in blue oaks NW of Hodge oak
 - flocks of three bandtails to 40 or 50 seen over
J.R. crossing line from W to E
 - Blue oaks - leaves opening
- C. cuneatus - earliest 1 to bloom now in full bloom - 100 yds
From Westridge border -
 - Baeria - 6 or 8 seen on serp - rays much reduced - disc convexed
- Doe - trotted from dome to N of Hodge oak - no cause seen.
 - Calandrinia - 1st - near (N) of Keith Oak a bout 200' - bloom

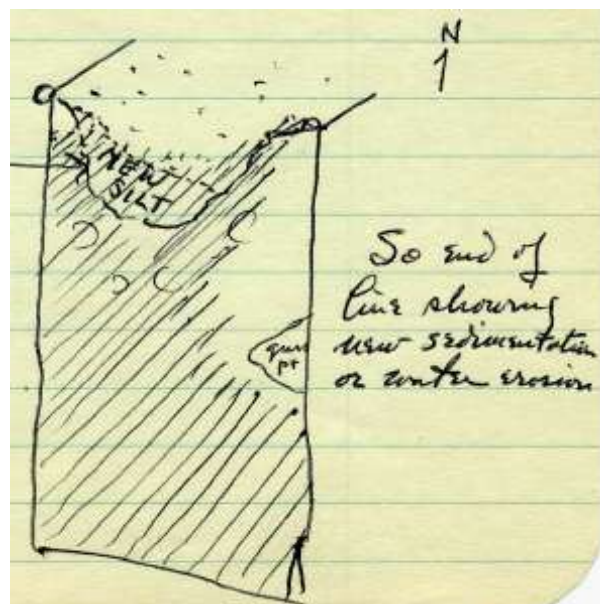
Feb 22nd/1963

On J.R. from Mantilla Dr. 12:15 noon - alone -

Waether: - Very clear, warm (over 70° in sun). NW wind - not strong

- Cyanog Possum - on either side of trail in oak woodland - foot of N.R. - five plants with many blooms, all strong, light red violet. I ten feet away- blue - other plants not yet blooming
- Band-tailed Pigeons - 9 from CMW upo line over N.R.
- Baby Blue Eyes - no trace yet at usual site
- Yarrow - many to 4" - baby blue eye site near broken oak
- Coon tracks - trail by CMW - throughout CMW - all over N.Cr.
- Wild Cat " - " " " - So trail " - at N. Cr. -
-
- Fox " - " " " " " " " " - no scats -
- Ninebark - early leaves in autumn drought, following rain wilted or arrested by frost - new leaves coming on - sunny area N. Cr. delta - Early leaves better off under cover.
- Flicker - across CMW. over tree height
- Sp Towhee - 50' inside CMW on So trail as usual
- Hutton Vireo - 2 in Song in C.M.W.
- Sparrow Hawk - from Mistletoe oak to largest Valley oak - upper C.M.F.
- Trillium - several showing deep red in opening bracts, throughout CMW.
- Leatherwood - bloom along So trail -
[CMW on line]
- Laurels - only living ones- cluster of 4 near So corner of line.
- C M Cr. not under 10' wide - murky. N.Cr. clear
Much deposition this winter with shifting Cr. courses. Silt deposited to over 18" in places.

Lowest C.M.F. covered with to 6" slush
Baccharis border likely killed -----
Sedimentation of 1956 slows water
to extent that more was deposited since
than in that flood.
Earlier willow saplings thinning, larger
plants persisting - Coffeeberry
sometimes silt invader



Off line 1:15 -

Feb 24th 1963

To Searsville Pond - 9:15 AM - met S M Co Audubon Group
and went into Searsville with them - around lake to *Q dumosa*
site, thence to heron rookery area & back to parking - 12:15 noon

Weather: - clear sunny - 72°

- Cinnamon Teal - 3 on pond - E end -
- Ring-necks - prob 30 on pond
- Coots - " 10 " " also at S.L.
- Ruddy ducks " 6 " "
- Bufflehead - S.L. prob 4 - mid lake
- Canvasbacks - S.L. _____ " "
- Yellowthroat
- G.C Sparrow
- Br. Towhee - } Tules edge in S. hindsiana S end of lake
- B. Wren
- Chickadee
- Herons - 16 flushed from nests.
- Anna hummers - feeding on Indian Warriors - 200' S ed of
 Q dumosas -
- Fox scats - 3 sets W. part of reserve - all toyon
- Toyon - berries still holding -
- Redtail - immature, soaring over chap-
- B. Wren } songs in chap above heron nests
- Thrasher}
- _____ "
- Waxwings - about 15 - flycatching and pecking (feeding on ?)
 new willow carpels- *S. lasiandra* - So end S.L.
- Sharp-shin hawk - into willows - " " "

March 4th 1963 -

At Searsville - Proj. M border on Sand Hill Rd. - 9:10 AM alone

Weather: - extremely clear - persistent NNE wind.

- S.F. Cr. - 8' to 20' across - clear. Earlier flood to 6' deep or more.
- Alders - some trees with no leaves - others with few to 1½"
- Salix lasiolepis - leaves to 1½" - S.F.Cr.
- Sharp-shinned hawk - from W to Searsville Rocks, and to largest fir beyond (flushed later)
 - Flicker - Oaks at S.R
- Vulture - 1 over N. J. R.
- Grindelia - basal leaves to 5" - W.S.R.
- Amsinkia - 1st bloom seen - (2 or 3) field W. of S. F. Cr. and N.W. of S.R.
- Toyon - losing berries along brush line above S.R. serp - berries litter the ground. Berries holding in woodlands.
- Dodecathion hendersonii cruciatum - blooming in shade - S.R.serp area
- Mission Bells - some with full buds - prob bloom in week.
- Trilliums - some fine blooms - most yet to come, prob.
- Sweet pea - (round leaved) 3 blooms N.J.R. middle to lower ridge
- Berberis - 1 with yellow buds - bloom this week.
- Eriophyllum lanatum - up 5" above S.F.Cr. near tiger lilies
- Polypodiums - up to 8"
- Tiger lilies - up 3" to 6"
- Hutton vireo - song in l.o. mid N.J.R.
- Angelica - to 10" near tiger lilies
- Milk maids - abundant in woodland throughout N.J.R.
- Fat Sol Seal - shade - N.J.R. to 8"
- Maples - by S.F.Cr. beginning bloom - some quite full.
- Maidenhair ferns - about ½ way up to nearly full size
- P. O. some leaflets to 1" in sun by S.F.Cr.
- [Fragaria] saw 3 blooms N.J.R.
- Brodiaea pulchella - 1st bloom seen - 1 sunny grass bank above S.F.Cr. opp. Tiger lily site.

- 3/4/63 - (cont.) - Jasper Ridge -
- *Sanicula crassicaulis* - about to bloom - = grassy slope opposite tiger lily site -
 - Nuthatch - heard - above site .
 - *Montia perfoliata* - 1st blooms - where we park - near S.F. Cr.
 - Hazel - leaves to 3/4" - NE of S.R. across S.F. Cr. - Catkins about since Dec. prob.
 - Sedge - abundant at confluence of S.F. and Bear Creeks -
 - blooming - yellow anthered heads terminal, white stigmas below in separate heads- Bracts black.
 - Fairy lanterns - basal leaves to full size - N.J.R.
 - Fairy Bells - about to bloom - violet site by S.F.Cr.

Off J.R. - 11:10 A.M.

March 10, 1963

Ontop of J.R. from Goya Rd. 9:30 AM alone -

Weather:- sunny, clear, N.W. breezes.

- Calif. Thrasher - song in p.o. clump 150' inside reserve
 - Br. Towhee - two " " " " " "
 - G.C Sparrow - very few " " " " " "
 - Cedar Waxwings - about 10 - top of oaks bet top of J.R. grassland
and E serp - flew SE. but returned in
2 or 3 minutes.
 - Robins - 2 with above - flew with above, and returned.
["] few notes.
 - Indian Warriors - about peak of bloom.
 - Cal. Jays - in woodland N.E. of top of J.R. to line
- roughly 1 per 100 yds - each way-
 - Juncos - 2 on trail edge of woods at E serp.
 - Linnets - 2-oak-toyon next to E serp.
 - Lomatium - white & yellow blooms - E serp.
 - Poppies - 3 plants blooming - E. to S. border of live oak canopy
-live oak in or by serp - 100' N of trail emergence
from woodland to E serp -
 - Brodiaea pulchella - 5 - same site as above - under edge of
live oak canopy - anthesis of oak here
 - Live oak - in woodland W of E serp - some in or approaching
anthesis -
 - Black oak - many "pink" leaves showing -
 - Valley oaks - some with pale yellow green new leaves
- Woodland bet E serp and Keith Oak chap - NE slope - dense to open
- Indian Warriors - blooming -
 - Dodecatheon hendersonii cruciatum - open area - blooming
 - Tauschia (prob) - full bloom
 - Quercus durata intermixed here - the general
assembly of plants is "different" here - as would
be shown in complete listing -

3/10/63 -

- Dodecatheon clevelandii var. patulum - full bloom -
becoming more widespread in last 3 years on serp
outcroppings -
 - Larks - song - E serp -
 - Redtails - 2 over Portola Valley - circling.
 - Orthocarpus densiflorus - 1st bloom 200' W of round encl. only 1 seen
 - Lomatium - abundant on serp -
 - Quad #13 - stakes pulled -
 - Barria - near #14 - some 5 petalled - some 8 petalled
and 2 - 13 petalled -
 - Bromus rigidus - first heads seen - 3/3 - grass heads
still not appearing -
 - Sparrow hawk - top of tumble down oak to dome oak.
 - Cal. Woodpecker - with above flight, this left tumble down
oak to large Val. oak S.W., but followed shortly
to limb near sparrow hawk on dome oak.
 - Anna hummer - perched atop Adenostema - about 1000' E
of dome - another heard E.
 - Lepidium nitidum - still blooming on serp -
- Fire- Effects of fire of Aug 8th on line - grass difference hardly
distinguishable in aspect - tho less on burn.

Off J.R. 10:40

Duplicate - toss

March 18th 1963

On top of J.R. from Goya Rd. alone 9:30 AM

Weather:- clear, sunny, NE. breeze -

- Band-tailed Pigeons - 50' up Westridge border and over J.R.
 - towards mountains - flying up 100'
 - then 17 towards mountains seen about over
 - round end near line.
 - 3 to 5 live oaks near E serp - 2's & 3's
 - flying about E.J.R.
- Sparrow hawk - 1 in flight to E over E.J.R.
- Dove - heard - canyon E. of round enclosure.
- Bush-tits - flock in l.o. on serp butend #2 & #3
- Titmouse - in song above l.o. - another heard down canyon
200' N.
- Thrashers - song in p.o. clump 200' inside preserve - several
- songs heard E.N.E. J R.
- Junco - in l.o. toyon group 100' W. of 2nd encl.
- Waxwings - about 8 in above l.o. - quiet - later to top
of base nearby blue oak
- about 15 in tight flock from over end of Goya
Rd. towards J.R. - up 100' about.
- Jay - in above toyon - oak - flew up 2nd brush 50' NE.

Noon

- Red-tail - "buzzed" repeatedly by sparrow hawk over [home]
- Deer - 3 does - 1 spike (buds of antlers about 3/4" high) on E serp
2 " - passed to W down canyon by 2nd encl.
1 doe - 2 yearling fawns - trail to E serp - but opp.
end of woodland from serp. These N into chaparral.
In all 9 deer in 100 yd, radius.
- Toyons - berries holding - dark red - over-ripe.
- Linanthus - white and pale violet - about a dozen on E serp.
- Live oaks - in anthesis - 1 lone oak standing in grassland 200' NW.
of 2nd encl. checked in anthesis with Ron (Xmas?). In anthesis anew

New blooms at base of new growth on stems 1" to 4" bearing pale pubescent leaves to 3/4". Old bloom dry, and not from new terminal stems, but attached immediately below

March 23, 1963 -

Top of J.R. from Goya Rd. alone - 9:20 AM.

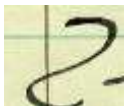
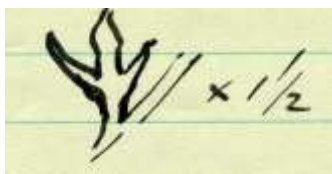
Weather:- clear - steady N. breeze.

Area between Westridge edge of preserve to E. serp.

- V.G.Swallows - 3 high over top of J.R. - Others or same established nest sites in l.o. close to trail to E.

First this year 3/19 - Sand Hill Rd. over Bear Cr.

- Thrashers - 2 - E. & W. of trail to E.serp.
- Sp. Towhee - 2 - E " " " " "
- Band-tailed Pigeons - 1 to E. over J.R. E serp-
- Linnets - small group in l.o. toward E. serp.
- Titmouse - " " " " "
- Juncos - few " " " " "
- G.C.Sparrows - in live oaks near Westridge border
- W. Flycatcher ? - 1st by trail to E serp.
- Quail - trail to E serp -
- Lomatium daseycarpum (small grey fuzzy foliage) N. edge E. serp
variable spacing to under Q durata - pressed.
Blooms white, turning yellowish in full anthesis - then white, the yellow being filaments and anthers - corolla white.
- Lomatium sp. Nearby on E. erp. - long lobed leaves - no bloom



Yellow umbelliferid - under Q durata - full bloom, same as that in Hodge Pool area.

- Anna hummer - feeding on Indian-warriors by trail to E. serp.- and N. of E serp.
- Brush rabbit } tracks on trail that goes by 2nd enclosure.
- Spotted Skunk } but 100 yds below 2nd encl. & N of E Serp.
- Wren-tit - in song by 2nd enclosure.
- Toyon - holding fruit throughout.
- Cal Jays - 4 bet. Westridge border & E. Serp. - few N. of E serp.
- Titmouse - in song in l.o. by 2nd encl.

3/23/63 (cont.)

- Dodecatheon clevelandii patulum - few, large off serp N. of
2nd encl. appearing quite as at blue oak
area N of serp. - N. top J.R. - same parent soil.
- Valley oaks blooming - leafing out -
- Lomatium caruifolium - N of E serp & on serp. foliage only
- few -
- Waxwings - N. across lower E serp - about 12 in tight flock.
10 min. later, 3 groups totaling over 50 flew to E - 150'
N. of 2nd encl.
- Fox scats large - all toyon berries and deposited next to old
skunk or wildcat scats.
- Baeria - forming extensive cover of bloom.
- Layia platyglossum - 1st bloom; mid-serp on line.
- Dodecatheon clevelandii patulum - five large plants
blooming abundantly in N top J.R. blue oaks.
- Red-tail Hawk - immature circling N.J.R.
- Band-tailed pigeons - about 30 to N.W. along NE.J.R.
- N. blue oaks - top J.R.
 - Hairy Woodpecker - in blue oaks
 - Nuthatch " " "
 - 3 to 6 Linnets " " "
 - Junco " " "
- Vulture over N.E.J.R.
- Dove heard earlier, top of J.R. near E serp.
- Flicker - flew from ground near 2nd encl.
- Luzula - bloom about gone - coll. 100 yds N of Keith oak.
- Stipa - approaching anthesis, no heads last Mon.
- Callandrinia - seems to be always deer grazed - no blooms
seen - 1 bloom last Monday ----
Off J.R. 1:45

April 14, 1963 - Easter -

On J.R. E serp 10:30 with John Schultz - to upper C.M.F. - off J.R. noon.

On Cooper Line 12:20 - and along top of J.R. to line 12:40 - 1:40 P.M.

Weather:- intermittent showers - downpour 12:20 to 1:40 - strong S.W. wind.

Collected first for John - then back for a few items to be checked.

- *Lupinus micranthus* - collected in grassland 100' SW of buckeyes wilted to point not suitable for Dudley Herbarium.
 - pods - to 7 mm. Wide
 - leaflets- sparsely pubescent to glabrous above
 - reflexed part of banner longer than appressed portion?
 This is a difficult one to resolve - collect more.
- *Thelypodium lasiophyllum* (H. & A.) Greene var. *inalienum* Robins.

The first and only plant of this seen was near E edge of line
 On serp. by large rock near "road" - to about 24" tall.
 Now quite widespread showing frequently within 30'- also
 Scattered on E. serp. - collected.
- *Baeria chrysostoma* - on serp. noticeably more abundant on burn of last Aug.8th - The cover above road where not burned restricted *Baeria*. Also noticed this year more heads with more than 8 ray flowers (the normal dominant). The heads this year seen greater in diameter. Altho no measurements or counts of samples were made, these differences are real -- no proof.
- *Lupinus nanus* (April 15) checked on dome - (off serp.)

The habit of following major disturbance manifested
 By abundance on burn only on top of dome, and
 Down east and other sides where light(?) permitted.
 No *L. micranthus* on dome as before
- *Erodium* (mostly botrys) thriving on burn.
- *Festuca grayii* - common along serp creek on serp. side. - collected.
- *Brodiaea terrestris* - still spreading on serp in absence of cattle.

4/14/63 (cont.) --

- *Lupinus nanus* X *L. densiflorus* - upper C.M.F. sits in abundant bloom on hip of hill above fence - particularly 50' up. These *L. nanus* seem introgressed, but pods must be gathered. Leaflets too broad for *nanus* and flowers more verticillate. Pods beginning, but already second.
- *Cryptantha micromeres* - bet #4 & #5 in cleared Cooper line
- *Bromus rigidus* - on fill of road sloping into remnant of #3 also more widespread on off serp grasslands on reserve showing red. - not tall (to 14" or 16") -
- *Festuca dertonensis* - (prob.) - by serp Cr. in decomposed heavy, wet, serp soil. Not in full heads. (check in 2 wks.).
- *Quercus douglasii* X *Q. lobata* on N.E. dome following *douglasii* leafing - slightly ahead of nearby *Q. lobatas*, but not as advanced as some *Q. douglasii*.
- *Rosa gymnocarpa* - (prob.) - in Cooper quad #3. Prob. Listed as *R. calif.*
- Vulture - 1 over N.W. end J.R.
- Brewer Blackbird - song - top of oak near round enclosure.
- Red-tail - over S.W. J.R. reserve -
- Lower C.M.F. extensively flooded

April 21st, 1963

On top of J.R. 1:10 P.M. to 4:30 - from Goya Rd to serp chaparral W. of Hodge oak - to encl., Holyoak, and Grass Island.
Weather: - 24 hr. rainfall .15". Broken overcast - S.W. wind, brief Light shower.

- Flicker - low over ground from J.R. across end of Goya Rd.
- Red-tail - over N.R. circling
- G.C.Sparrow - heard from dome - also at home
- Sparrow Hawk - top of Hodge Oak - made one pass to ground and back.
 - Grasshopper chorus pronounced on serp. - also last Sunday.
- Heron -(G.B.) - seen in distance flying to nest site.
- Larks - song from oak tops - round encl. blue oak by road, dome - and beyond. 1 nest just outside of canopy N.W. of blue oak close to road opp old corral. Once 3 larks Were in this tree.

- Dist.- *Trifolium fucatum* Lindl. Var. *virescens* (Greene) Jeps.{as given in Munz} only one previous specimen coll day. W. end of serp by "road" near blue oaks. (See Ron's 1961 material). Today frequent in low wet gummy serp near "road" So of Hodge Oak. coll.& pressed.
- *Hesperolinum micranthum* (Linum) - formerly rare. Now becoming widespread on open serp.
 - *Baeria* - passing peak of bloom
 - *Linanthus* - not at peak bloom yet, it seems, because of recent continuing rains. Not appearing at quad #19 because of tall grass.
 - *Trifolium dichotomum* - more abundant on serp than previously This is tall enough to be cattle-grazed.
 - No *Pectocarya penicillata* - could be found W. of *Mimulus* gully in chap. as last year - (Rare)

4/21/63 (cont.)

- Hyla - many voices in serp. cr. towards Mimulus gully.
 - Trifolium tridentatum. Tomcat clover) - for first time seen on serp. - Very few near Hodge Oak area and Mimulus gully - prob. Disturbance.
- New - Euphorbia spathulata Lam. - conspicuous - 2 dm. Tall - about full bloom - scattered in grass near edge of Baccharis and p.o. about 100+ feet S. of Holy oak on line. Had this appeared earlier on line, it could not possibly have been overlooked.
- Lithophragma affinis - Woodland Star - blooming at Grass Island -
 - Lupinus micranthus - 1 plant only found in swale E of #20
 - Festuca reflexa - common about #21.
 - Festuca myuros - in patches, growing to 16" tall along road and in fields bet. Westridge & line -

April 28th 1963

Top of J.R. from Goya Rd. to line about 11:30 to 1 P.M. D.S.T. with John Schultz.

Weather: - clear, sunny - first break in long wet spell -

Aspect:- All is green Hardly any drying seen by "road". Prob greenest year since 1953

- Quercus - all showing new leaf.
- Bromus rigidus showing red in large hillside patches.
- Erodium - still showing broad patches, but more restricted than previously.
- Baeria - still a bright carpet on burn of last Aug 8th.
- Linum micranthum - for first time in patches between #15 & #17 on line - becoming common.
- Trifolium barbigerum - more widespread in grasslands.
- Bromus rubens - edge of chaparral where chap. is nearest to "road" bet. Westridge and line.
- Bromus madritensis - with above. Tho each growing in separate clumps for the most part
- Band-tailed pigeons - 7 to E.S.E. along top of J.R. from line
- Brodiaea hyacinthine - 1st bloom - just breaking bet #15 & #17
- Brodiaea coronaria etc. (terrestris) scattered bet #15 & #17 and elsewhere where it hasn't appeared previously. The extention of range noticed last year, and now considerably enlarges - either from cattle removal, or this year, from increased rainfall, and better soil moisture condition.
- Gilia sp. Also more widespread on serp - (prob. Clivorum)
- Lupinus micranthus - scattered - not common - presumably no L. bicolor bet Westridge & line - top of J.R.
- Bromus carinatus - by serp cr. S.W. of Hodge Oak.

May 5th 1963 -

To Searsville - 11:20 A.M. - 3 P.M. Route - to lupin field, back by way of *Quercus dumosa* site. Then to W. of *Q. dumosa* in chap. Thence to S.F.Cr. below S.R.

- Weather: - warm, sultry - rising S.W. winds -
- *Salix hindsiana* - coll pressed - staminate flowers in anthesis, pistillate mostly past - (pressed) - S. end S.L.
- Herons (Swamp rookery) - some sitting on nests - some standing no heads of nestlings visible from hillside

Grassland - (great lupin field opp Heron rookery)

Aspect - grasslands throughout all green, and unpressidated grass heights - no dry spots - no stickers aside of few *Erodiums*

- *Erodiums* - crowded in tall grass - plants tall, but fewer
- *Trifolium dichotomum* - to 10" tall in high grass along trail by swamp, in contrast to about 4" on serp.
- *Astragalus gambellianus* - above site to 8" quite erect in tall grass - blooms and pods perhaps twice size of prostrate (to 3") serp. forms.
- *Festuca myuros* - to 18" - abundant.
- *Bromus mollis* } dominants "very tall"
- " *rigidus* }
- *Orthocarpus densiflorus* - not abundant, but scattered frequently by swamp trail
- *Ookow* - few " " "
- *Brodiaea laxa* } common - scattered -
- " *pulchella* }
- Common Grassland plants present, Lotus, Geranium, extra tall
- Blue-eyed grass - common scattered.
- *Lupinus nanus* - " " , narrow-leafed
- *Stachys rigida quecetorum* - growing into even dry areas.

5/5/63 (cont.)

- *Baeria chryptostoma* - ssp. W. of Lupin field - fewer this year than '61, '62 in same limited patch - coll. Pressed. - to 14" - thin stemmed.
- Blue-eyed grass - 1 white-flowered plant - this more stout than most - common blue about.
- *Thysanocarpus curvipes* (prob var. *curvipes*) - to about 18" scattered on rock slide SE of parking area S.E. corner of S.L.
- *Phacelia imbricate* - more abundant top of above slide -
- Rock slide (above) - with a considerable amount of vegetation - for the first time in 2 years (at least) - previous to this year - just talus.
- *Pogogyne* - common - flat in *Baccharis* below above slide.
- *Quercus dumosa* - with 2 mm pale buds (leaf or flower?)
- *Linanthus pygmaeus* }
- *Eriastrum abramsii* } dense in gully N. (about 100+') all
- *Anthriscus* } together under *Cercocarpus* canopy - on
- *Montia perfoliata* } exposed Franciscan.
- *Monolopia* - none seen this year - (see 5/12/63) -

Down "up" road S.W. of S.R. - serp partially shaded by oak wdld.

New

- *Plectritis macrocera* - abundant above road (coll. pressed)
- *Lomatium caruifolium* - common " " " "
- *Collinsia franciscana* - scattered " " " "
- To about 10" full fruit - but blooming -
- Baby blue-eyes - small, blooming in shade of road-cut oak woodland -

Serp S.E. of S.R. - Grass tall -

- Poppies - abundant on lower 1/3 of serp -
- Other plants much restricted
- *Delphiniums* - many in bloom.

5/5/63 (cont).

- Allium - none on serp SE of S.R.
- S.F.Cr.
 - Viola ocellata - more abundant N of S.R.
 - Tiger Lilies - 3 plants " " " - above site.
 - Carex globosa - (almost certain) - see 4/15/61 as ident by Ron - only plant then from laurel roots 25' above Cr. - Today's find above large rock by S.F. Cr. at Violet site - 15' up bank - Coll - put in fish pond - (Whipplea in same sod)
- Whipplea modesta - (see above) - common & blooming.
- Prunus demissa ? - low 24" stems - few leaves - above site
- SF.Cr. nowhere less than 5' wide - running clear.

Aspect. - This late date still showing nothing drying.
The greenest spring in my recollection.

- Hillstars - to 2' - up side of road by great inlet.
- Brodiaea laxa - common along road from swamp to great inlet last year - Very scarce this year in contrast
- Festuca megalura - by swamp trail -
- Osmorhiza chilensis - common about Violet site- bloom & seed.



Swamp full of bird activity - none checked out -
Addenda-

- Festuca megalura - common along swamp trail near heron rookery
- " myuros - " " " " " " " " " " " "

May 12th 1963

At Searsville Lake to S.E. corner parking area near gate to reserve
11 AM - eventually to serp. S.E. of S. R. - leaving [area]

Weather: - sunny thru heavy fracto-stratus clouds. S.W. breezes
but mostly still.

- Dove - calling repeatedly from willows - edge of swamp near car -
- B.H. Grosbeak - song - above site -
- Robins - 2 to top of willow, edge of swamp - in 10 seconds flew down into swamp willows
- Herons - 1 low to N from rookery
1 higher to rookery from N.
- B. Wren - feeding in low willow - edge of swamp.
- Baeria site to rock slide within 100 yds of car
 - +Woodland stars - few (coll. & pressed) on talus slope
 - Bromus rubrus - usually in clusters - but scattered along or near top (not all) of slope (coll & pressed)
 - Thysanocarpus curvipes (prob. var. curvipes) - " " - upper half of steep talus slopes -
 - * Woodland star on exposed slope - borders N. facing. Hill - Stars near great inlet - N facing roadbank, but in far more mesic circumstances -
 - Baeria c. g.? - only 12 blooms seen - many last year petals now - 5 to 8 mostly 8. Much Geranium and Torillas present - also Elymus.
 - Elymus in L. o. shade above site - to over 4' - very heavy growth. (coll. pressed) -
- Linanthus pygmaeus - (coll. pressed) - site N, of Q. dumosa plants mostly spreading - sev. stems - mostly decumbent, spreading: no plants over 3" across, under edge of canopy of Cercocarpus with other plants - few over 1 1/2" tall
 - Anthriscus, Montia p., Madia exigua, and Pogogyne.
- White Swallowtail (P.eurymedon) - above site on Marah & Cercocarpus - not feeding.

5/12/63 (cont) -

- Senecio (prob. minimus) in chap. beginning anthesis - above site
 - Chenopodium calif. - Edge of road below Linanthus p. site
with inflorescence complete.
 - Hieracium albiflorum - bloom. Few scattered along road
bank in chap.
 - Monolopia gracilens - at site on end of "road" to above G.C(coll & pressed)
None found in former locations, but just over edge
of Canyon at edge of chap but still in grass. Few,
but all from 12" to 18". Last year's and 25' W - to 5".
 - By roadside at highest point E. of S.L. where little road to above site
joins main dirt road -
 - Festuca megalura - quite reddish coll. & pressed
 - Orthocarpus attenuatus - only one - to full size - about 10"
 - Orthocarpus densiflorus - 3 only - and varying.
 - Grindellia - large plants - large bloom on edge of steep
"down" road by S.R.
 - Collinsia franciscana - only 3 plants found with blooms, and
all at last Sunday's (first ever) site - up side of "up" road
lower edge of serp - or within 50' of where lower border
of serp crosses this road - Not elsewhere
- Lowest serp outcropping across field to rocks with rich and
abundant growth and in all a striking sight.
- Pedicularis - still blooming in above area (off serp) at edge
of woodland----

May 18th 1963 --

To "cut-off" - upper C.M.F. along chaparral border to N.Cr. -
up N. Cr. to N. bend into canyon - to lower C.M.F. - alone 7:30 PM to 8:20

General aspects: - The grasses are extremely tall by comparison

With previous years, all of which were drought since
Cattle were removed. Small trails overgrown. The main trail up
SW. N.R. now the only trail - no cross trails, excepting game
Trails - now seen more evident.

- *Lomatium dasycarpum* (prob.) near cut-off with very broad winged fruit.
 - *Elymus glaucus* - tall border along chap. - upper C.M.F. from cut-off west to buckeyes.
 - *Brodiaea*s - field species more abundant and wider ranging than ever, but not reaching height of grasses.
 - *Lupinus nanus* - spindly plants only on dry S. facing upper C.M.F. not abundant.
 - Grasses growing into and against chap. eliminating much of usual border growth - *Tillea*, *Psilocarphus* etc
- although these may be found with *Pogogyne*, etc.
- ~~HOH~~ Nolan Cr. - water running but going into gravel below N bend.
- growth to twice height forming hedges by trail.
 - Bugle current - last blooms - full green fruit.
 - *Trillium*s - virtually absent along lower N.Cr. where abundant 2 years ago.
 - Deer - flushed on trail where it bends W. to cross M. Cr.
 - *Mimulus guttatus* var *micranthus* - coll. & pressed by trail at above site just betw. Delta and trail bend to line.
 - *Senecio aronicoides* - growing with above - coll-not pressed both of above with *Montia*, woodferns, under oak-buckeyes
 - *Trifolium ciliolatum* - to 18" upper upper C.M.F.
(coll other material for fresh checking)

May 19th 1963 -

On top of Jasper Ridge from Goya Rd 8:50 AM - to E serp. - then "back-way" to encl. on line & return at 11 AM - Thence to Searsville - Searsville Rocks and violet site by S.F.Cr. 12:30. - Weather - stratus layer from La Honda summit So, concealing all of Black Mt. Scattered low overcast rising. N wind shifting to stronger N.W. winds.

E. Serp -

Pressed - Festuca (*grayi* ~~or pacifica~~) coll-pressed/This is *grayi* [mowed? or now red?]

" - Agoseris " " - Stipa pulchra - abundant. - Linanthus - saw only 1 on top of E.serp. none to encl.#2.

- Bromus mollis } all to 18". Mediterranean grass
- Koeleria } has successfully invaded the
- Sitanion } serp this year
- Lolium }

- Linum micranthum - has become abundant on all serp, increasing since cattle removal.
- Brodiaea hyacinthine - common in swale W. of E serp common in low places, and extending to ranges above former limits.

-Gilia clivorum - on ant hill 150' E of encl.#2 with above coll. Festuca, Hosakia, and Astragalus g.

- Toyon berries - all gone - within last 2 weeks.
- Fox scats - now all with C. cuneatus (I think) seed.
- Sanicula bulbosa - none in lower E. cor. Of encl.
- Lupinus bicolor var. microphyllus - 1 by "road" where Franciscan formation is overlain by decomposed serp etc. (pressed in Abrams v. III) - only 1 found

Pressed- Juncus bufonius - by puddle near above site by "road" - pressed
Pressed- Brodiaea terrestris - to about 1' tall - above site - pressed growing in tall grass - B. mollis, etc.

5/19/63 -

- *Dudleya cymosa* ssp. *Cymosa* - lots of bloom - just coming on - but full - on S.R. coll.
- *Pholistoma auritum* - full purplish-blue flowers climbing over lower north S.R. in grassland under buckeyes.
- Pressed- *Viola ocellata* - 5' above SFCr. N of S.R. coll & pressed
- " - *Collomia* - " " " " " " " "
- " - *Melica geyeri* - onion grass - same site as above.
- Grasses - few about this area coll - for live checking.
- *Serp* opp. S.R. (nothing new) -
- Castilleja affinis* (prob -{the most common}) on *serp*.
- Fairy lantern - on *serp*.
- New - *Bromus vulgaris* - (Hook.) Shear. - under redwoods 100' W of violet site.
- *Festuca dertonensis* - edge of wood N of S.R. - buckeye area



May 19th 1963 -

Up N.R. to N.Cr. - past bee tree to N Cr. at edge of Stanford land - up fence line & past ["desk"]

Aspect - growth in profusion. Trail down N.E. N.R. trimmed. Erosion on this trail about 1' deep in 15 years. Fire trail at Top of N.R. grown over but passable. Firetrail at foot of N.R. completely impenetrable. Trail from N.E. Nolan shelf past Nolan Rock obliterated by grass. Crossing N Cr. south to buckeye grove & valley oaks, entire flat covered with 2' tall *Anthriscus* - Chap. above so overgrown with *Anthriscus* and *Marah* that penetration thru open areas possible only on deer trails. Old trail up Stanford-Westridge fence overgrown with p.o.

- now quite impossible. From top of this trail to "savannah" chaparral is closing trail. No trail in "savannah" any longer.

- None down S.W.N.R. excepting main trail.

- *Aquilegia formosa* var. *truncata* (Columbine) - scattered and common to 1/3+ way up from bottom of NE.N.R., but not forming dense patches as previously - coll. pressed

- *Prunus demissa* - full bloom S.W. N.Cr. shelf.

HOH - Nolan Cr. - running across line -

5/19/63 - (cont) -

- Castilleja foliolosa - coll & pressed S. cherry dome.
- Dodecatheon hendersonii hendersonii - full fruit - past bloom
S. bank N.Cr.
- Senecio aramicoides - 1 at above site (only one) pressed.
- Galium aparine - growing to 3' up oak tree - above site.
- Grasses coll atop N.R. by fire trail for live chacking.
- Grass on S. cherry dome - taller than before. Odd
plants found here before may not appear again.



New - Festuca octoflora - pulled with Cryptantha on top of
Nolan Ridge - also Festuca myuros - Madia exigua
1 plant, poor for pressing but easily identifiable
not pressed

May 26th 1963 - (recollection of 6/17/63 -

Jane and I walked from Skyline down old, impassable, Purissima Rd. To Purissima Cr. with doggies. Collected ferns (pressed). For Ron.

Clintonia - much bloom - coll. 1 to plant at house -

Lupinus (prob.) latifolius - bloom by road -

Viola ocellata - bloom on road bank higher on hill -

I would have expected reverse positions on above

Ceanothus thyrsiflorus - bloom - upper part of hill.

Horse-tails - common at canyon bottom

Woodwardias - small on road bank by Purissima Cr. growing

to 2' from moss on steep highly crystalline but

not dense sandstone - very coarse grains.

Maiden hair - by P. Cr.

5-fingered ferns on steep bank only above road -

Madia madioides - by road -

Aralia - blooming near creek -

Fir - 1-3' d.bh. across road near cr.

June 2nd 1963.


To top of Nolan Ridge - along fire trail to Nolan Cr. thence thru lower C.M.F. and C.M.W -

Weather: - warm, but all still green

- Festuca dertonensis - pressed - not uncommon along fire trail.

- Pterostegia drymerioides - pressed - growing along fire trail

in shade of Cercocarpus and Prunus.

- Gopher snake  buckeye gully to across line in upper C.M.F.

- Quail reaches ridge forming slight dip. Buckeyes giving way to chap. within 60' of ridge top

Here under chap - dense thallictrum, and in this a quail path up to fire trail. Several Quail-dusting depressions in fire trail-

Waiting in Thallictrum loosely twice flexed

gopher snake - about 30" from dusting site.

was flushed by my appearance.



lay an approx 30"

It

6/2/63 - (cont) -


Plants pressed - to be noted -

- *Symphoricarpos mollis* - common - W. end N.R. in chap.wdld
ecotone - blooming.
- *Senecio aronicoides* coll. along "delta" area -
- Lower C.M.F. aspect.
On level or least slope of tower C.M.F. much water has been
standing. Any *Baccharis* recovery of border eliminated and
the grass dominant is tall *Lolium multiflorum*. *Elymus*
now scant on E. border of little field, and *Hordeum brachyanthum*
sparse where formerly abundant.
- Pressed - several plants now in press. Notes lately included
with specimens; field notes neglected -

June 9th 1963 -

To Searsville with Ron - walked from S.R. to line down and back S.F.Cr. trail -





Weather: - warm - still.

- no field notes - all notes in press with specimens -
- Coffee-fern pressed - principal reason for trip. This on line below rattlesnake rock. Only site known to us on J.R. for this -
- Unknown - 1 plant pressed -  lower dark blue - stem erect - leaves clasping. Grass under l.o. canopy about 30' N of coffee-berry site.
- Lathyrus latifolius - (perennial sweet-pea) - 1 bloom across cr. from tiger lily site on sunny sandy bank.
- Tiger Lilies - 47 stems - 7 buds at S.F.Cr. site -
 - 3 found 50' N of gate along S.F.Cr. trail separating J.R. reserve from Searsville park.
 These are about 60' from creek, appearing quite out of place under large l.o. (tall wide canopy) - in brush.
- Steller Jay - down S.F.Cr. - above sites.
- Cruciferid - coll by trail under redwoods 40' E of origin of trail to my old shack site. Only 1 plant - mostly [tramping] and talking on this trip - all is especially lush in the hills this year
- Peromyscus maniculatus - 1 sitting in trail about [800'] downstream from tiger lily site. It permitted close approach, and must have been ill, though it moved into grass-brush about 4' when touched on tail. Provided fine view of this little mouse -
- Carex barbarae - S.F. Cr. sandy bank N side S.F.Cr. bet crossing and fence below S.R.

June 16th 1963 -

To Searsville with Chas. And Jeff - 10 A.M.

Weather: - hot - (to 87 at home) -

- Coll - (pressed) -
- Phacelia imbricate - pressed at old slightly quarried site
S.E. end S.L. crest of scarp.
- Navarretia pubescens - edge of oaks (see 5/23/62) - prob
more than last year - but about past bloom - pressed
several - N of SE parking area -
- Quercus dumosa - about past bloom - pressed 2. Two
horsewomen passed - they had just seen large rattlesnake
top of J.R. prob in a moist draw. One reported
Q chrysolepis on their place - Family Farm Rd.
- Coll - assorted wildflowers for Jeff.
- Tiger lilies - buds heavier, or stems suffering from water
loss. Buds hanging vertically 
- [Iris] - leaved sedge 
- Juncus -  pressed - opp & E of tiger lily site on sandy
sunny bank-
- Cyperus - 

on] J.R.- Lotus corniculatus - 1 plant collected (pressed) - only plant present
spreading stems to 3+ dm.

- Steller Jay - violet site -
- Nuthatch - heard from S.R.
- Warbling Vireo - heard along S.F. Cr.
- Pewee - " " " "
- Blue herons - to 8 seen flying from rookery - 1 seen returning.

The lovely flat across S.F. Cr. from S.R. now hidden beneath
pile of dirt over 30' deep and perhaps 1000' long. This is
generally hidden from sight but is an unsightly and cruel damage.

June 23rd 1963 -

To top of J.R. from Goya Rd. to E serp thence by wandering to line, encl., and to serp. Cr. Met John Thomas near 2nd encl., and we visited throughout trip.

- *Clarkia purpurea* - becoming more frequent throughout J.R. Very dense patch on N-facing slope E. of trail down E serp. Also more common throughout serp areas, promising the serp. Circumstance that prevails at 2nd encl. where *Clarkia* is more abundant than surrounding area.
- *Lomatium* - coll. and pressed near #2- (20' W. under l.o.). most seed now shattered.
- Indian pink - along trail W. of 2nd encl. less than last year at which time they were especially abundant. - Also, fewer this year in serp. Near tiger lily site.
- *Elymus* - coll.- pressed - Tall *Elymus* looking "different" growing by trail down E serp., and about midway across serp. Next to this - (touching it) - was typical *Sitanion* At less than 1/2 height of *Elymus*.

July 1st - 1963 -

Coll. and pressed -

- Tiger lily - 1st one to bloom this year - one bud
about to bloom on same stem.

July 7th, 1963 -

To Searsville with Ron and Nancy -

Weather: - Sunny - clear

Walked along swamp trail for look into swamp - about 100 yds.

- Violet Green Swallow - nest - 75' from trail in woodpecker
hole in 8" dia willow stump about
15' above ground. Once 2 birds left nest. Return usually
at about 3 minute intervals.
- Yellow warbler - [in] seen in willows of swamp - briefly.
- Rosa spithamea - at hill top site above riders' shack - many
plants - no sign og bud or bloom.
- Calif. Thrasher - bounded across picnic area 70' to creek
bank from S.R. base. Tail held high.

August 18th 1963

To J.R. from Mantilla Dr. - across lower S.W. N.R. to 100 yds
W. of N. Cr. 'delta' - to CMW and Cr. - 6:20 P.M. to 8 P.M.




Weather: - clear, warmest part of day

- ds- - Nuthatch - 1 heard - oaks on line upper C.M.F./later 1 in CMW center
near Gr. Point
- Br. Towhees - 2 from upper CMF yo C.M.W. on line.
 - G.B. Goldfinches - 3 or 4 prob. High from C.M.W. to N.R.
 - V.G. Swallows - upper C.M.F. over CMW - to N.Cr. "delta" - up N. Cr.
to N. bend - extremely abundant. Prob. Over 100
in sight, but moving very rapidly. Underparts golden in reflection of
low light on dry grass. Prob. Many of this years broods. As two
might nearly meet in feeding, frequent fluttering combat took
place for couple of seconds.
 - Sp. Towhee - heard and saw one in buckeyes and brush S.E. N. Cr. delta
- " " " " CMW - 150' from C.M.F.
 - Wren-tit - 1 " " " " " " " "
 - Robins - 1 in split and fallen oak - upper CMF - At 7:45 PM about
12 seemed preparing to roost in open top of great cottonwood
in C.M.W. Also at latter point - 2 heard clucking and answering
150' apart along Cr. brush near cottonwood.
 - Doves - frequent throughout. At 7:45 P.M. sev. Left C M Cr. on line
from tree tops, flying toward N.R. where I've suspected
roosting - However, not all left.
 - Blackbirds - at sundown in 10's and 30's from Westridge over swamp to S.P.
 - Band-tails - 2 high over C.M.Cr. on line to N.E.
 - Steller Jay - 1 near S.E. cor. Of line at C.M.Cr. - quiet in l/o/
 - Song Sparrows - 2 edge of CMW by vernal pool in willow saplings.
 - Hairy Woodpecker - 1 high in laurel near CM Cr. on line - lightly tapping.
 - Chickadees - active in CMW. At home - 1 on stem held lily leaf
with 1 foot to stabilize it, while packing off small insects.
 - Purple Finches - 4 or 5 feeding on blue elder berries 150' E
N.Cr. delta.
- Deer - I was at CMF gate: - Heard 100 s. of So. trail entrance a
snort. Doe went E, fawn or fawns went W, tho shorter
distance. All were noisy. In a couple of minutes, snorting

8/18/63 - cont.

resumes - this time at 5 to 10 second intervals for about 10 times; these less startled. Half hour later, doe and 2 fawns- one (maybe both) spotted were flushed from lower C.M.F.

Aspects -

- Hillside on line - C.M.F. above gully to N. edge of line seared. Formerly this rocky area was covered largely with filaree and low grassland plants. This area now grassy excepting one spot no more than 50' across which may be covered in a year or two.
- Lower C.M.F. - vernal pool area and N along brush line still with moist ground. Baccharia all dead, and willows have moved out as much as 30' this year (S. lasiandra to 30"). About 50 Typha latifolia in this area - 30" to 60" - 2 with full heads. Juncus and Carex sp. Common.
- Stachys bullata - only pink one blooming (no. S. rigidus) C.M.W.
- Stachys pycnantha - by trail W. of N.Cr. delta where water flow[ed] last spring.
- Mimulus cardinalis - by trail N. Cr. delta.
- Rumex crispus - dry lower C.M.F. even tho moisture present.
- R. fueginus - green, full achenes by laurel nearest C.M.Cr. near So corner of line - to 40" tangled in other growth. Inner perianth segments almost fringed. There is no R. persicarioides on J. R. almost for certain - see Mason.
- R. salicifolius - N. Cr. delta by trail - willow-like leaves - 1 large callous grain.
- R. conglomerates - N.Cr. delta with above - 3 large callous grains filling segments. - Leaves of infl. 
- R. obtusifolius - perianth seg. CMW very weakly toothed - (laurel woods)
- Epilobium californicum - few by trail laurel area CMW
- Live oaks - dead ones in C.M.W. losing large limbs.
- Laurels - C.M.W. only 2 large ones living - and these in poor shape
- Alders  increasing - C.M.W.
- Cottonwoods 
- Castilleja latifolia var, wrightii - near So corner J.R.- C.M.Cr. bank - pressed

Aug 25th 1963 -

To Searsville Lake 11 AM - lake above S.E. point, and largest E inlet to R.spithamea site - and thence to S.F. Cr. to 1000' "downstream" - Returned 1:15.

Weather: - hot, clear -

- Searsville Lake in contrast to last year is down only 3 1/2 to 4'. The S.E. corner "point" where oaks grow on grassland is very different from last year, where to wide exposed bank was quite bare, and, "parrot-feather" (*Myriophyllum*) dominated the water-edge. The above condition, prevailed for the 3 years of drought. Now A 4' high 30' wide bank of *Polygonum* and a high bank of new *Typha angustifolia* borders this part of the lake
- *Boisduvalia densiflora* (Lindl.) Wats. (var. *imbricate* Green.)? (question as to var.) is common on above grassy bank to 5 dm. The imbrication of bracts here is close, like that at vernal pool, but the plant is 3 times taller, and the foliage round"-leaved" - quite at variance and very different in appearance. Vernal pool form is narrow -leaved, the leaves more widely separated. More should be collected of both in Sept. The septa in S.L. plants remain attached to placental axis.
- *Eleocharis macrostachya* - at above site - style bifid.
- *Paspallum distichum* - at above site, forming tangle with *Eleocharis* - and both to over 2', with much of the veg. prostrate.
- *Epilobium adenocaulon* var *occidentale* - at above site at upper edge of *Eleocharis* - *Paspalum*. (See last weeks C.M.W. notes). This differs from C.M.W. form as follows: -

C.M.W.	S.L.
flowers paler, pinkish white	flowers- light reddish magenta
petals - 3 mm	petals 4 mm.
heads incl. buds to capsules - 5 flowered	some racemes to 10-flowered
basal leaf petiole, subsessile to 6 mm.	some, subsessile to 2 m.m.

Leaves not separable in view of shade (C.M.W.) and sun (S.L.) - Both with incurved hairs rather dense above, and scattered glands -

8/25/63 (cont.) -

- Epilobium adenocaulon var. occidentale - (cont.). See Mason pg 607 (E. californicum). Pubescence variable and not recognized as separating characteristic.
- Brassica campestris - by road W. side S.L. 150' So of Lupinus formosus site with pods nearly 3" and 3 mm in dia. Root 1/2" thick - far stouter than any seen, and collected because of deviation from usual.
- Mimulus cardinalis - still blooming - S.F.Cr.
- Rosa spithamea - above riders shack on top of hill close to road. No bloom and no prospect of bloom this year - plants common under l.o. - but in limited area. Beneath l.o.s. are few mostly dead Ceanothus sorediatus, and some Adenostoma.
- Doves - common thruout overhead or on ground.
- Wren-tit - high on S.R., but on shady side towards redwoods.
- Cal Jays - common in groups of 3 to 5 - NW end of J.R. picnic area - and riders shack.
- S.F.Cr. with long pools, and some trickle, but running only thru or under gravel.

- Big inlet of S.L. with little bank below chaparral-.

Sept. 22nd 1963

On J.R. from Goya Rd 6 P.M. to Quad #9 to #17 - alone.

Weather: - Stratus overcast complete. Earlier light drizzle

with S.W. winds later shifting to N.W. Summit in clouds -

- Wild Pigeons - 3 - then 5 to S.W. over dome, later 2 to E.
- Horned Owl - 1 heard from near round end -
1 " " above #8 in l.o. top of S.E. swale.
Few repeated calls - all before actual sunset.
- Blackbirds - 7 over swale towards Searsville
- Green grass 1 1/2" to 3" about 30 blades in all in N. or burned
1/4 of quad #11, top of dome.
- Elymus glauca on dome burn in shade (E. to N.) some green at bases.
- Stipa p. noticeably increasing extent and density
- Small animal trails to 6" across conspicuous in grass on all
sides of domes. In tall grass mid W. side of dome
the trail was covered above with tall grass - skunk?
- Jack rabbit - scats on above trails
- Skunk - (prob.) by above on gopher mound by trail.
- Weasel - likely user of trails
- Quail - 2♂ from ground to val. Oak limb 4' above mid NE dome.
Later as I went to #12, 7 flushed and flew to grass-p.o.
W. end of dome- (2 of these flew E to grass.
- Deer - grass rolled on top of dome, and in #11.
- Cal Jay - 1 - W side of dome in oak.
- Cal Woodpecker - to N.E. along S.E. edge of line across serp.
- Hemizonia - On serp, plants are more slender than previously
because of increased grass cover - also prob. more numerous.
Slender plants to over 1' sometimes crowded to 1" apart.
- [Calycadenia] - past bloom, but extended to bet #16 and #17 (spreading?)
- Avena - growing to 4' against Adenostoma at borders - Keith oak area.
- Sp. Towhee - 2 in Adenostoma closest to "road" - and about 100' apart.

Off J.R. 7:30 -

Sept 29th 1963

On top of J.R. from Goya Rd. - 10:30 AM - alone

Weather: - cloudless - warm (low 80's)

- Flicker - heard in oaks at Westridge border
- Cal. Woodpecker - 2 in oaks near round encl. - occasionally flying to oaks N.E.
- Mockingbirds - 2 in p.o. - N. of round encl. One flew from E. to blue oaks on line by serp. Three minutes later it flew back E to l.o.s E of line. Other flew from E shortly behind 1st one to oaks near encl. on line.
- Fox scats - fresh - edge of serp on trail to S.F.Cr. - 1st seen with what must be acorn tests (still uncertain) which made up most of scats.
 - old scats on trail to S.F. Cr. - E of encl. All that remained was 6 seeds of *Prunus ilicifolia* on bare ground.
- Cal Jays - 2 in quad oaks. Earlier 1 heard near round encl.
- *Lactuca serriola* - 1 clump - scattered in 15' dia. Area, growing to 40" tall - to seed. In gopher diggings on serp bet. Round encl. and "road" (close to road)
- *Bromus mollis* - Now commonly to over 20" on hillsides - dry. Forming extensive stands which appear to have been rolled. This collapse from weather? - It is too extensive to be rolled by animals. *Avena*, *Melica*, & *Stipa* not affected so.
- *Perideridia Kelloggii* - slope between serp and trail to S.F. Cr. Common from E of encl. on line, below encl. and W along whole slope.
- *Cordylanthus* - scarce to absent under oaks E. and S.E. of encl. and into quad oaks - in contrast to 2 or 3 years ago.
- Screech owl - dry, torn apart remnants in grass 20' W of #19.
- Nuthatch - in oaks bet. #19 & #20.
- Sp. Towhee - near #20
- Vultures - 2 from S.W. to N.E. over line - low.
- Junco - 1 heard in quad oaks.

9/29/63 (cont.) -

- Aster radulinus - 1 bloomed 20' N.W. of #20. Plant 18" with 26 heads. 1st record of bloom in quad oaks (I think), tho appearing as low plants to 8" in N part of #20 for 10 years.
- Redtail Hawks - 1 mature - 1 immature circled Holy oak low then to E. and higher. 1 screamed once.
- Rodent holes in grass in quad oaks to about 1 1/2" in dia. - and into ground, but no mounds.
- ect - Grass - scattered green blades to 6" tall showing occasionally in quad oaks, appearing most commonly in #20, and about 30' W. of #20.

Offline - 12:30

Oct 6th 1963 -

Searsville - 3:30 P.M. alone - to Rosa spithamea site and return at 5 P.M.

Weather: high thin overcast - N.W. breeze

- Edge of Lake at fence - 100 yds W. of bridge - 200 yds from entrance
 - Azolla - out 3' from bank
 - Polygonum - to 30" tall from edge of water to up and over top of bank.
 - Artemisia douglasii] scattered along above edge
 - Epilobium]
 - Baccharis douglasii] next to above - 20' wide
 - Epilobium]
 - (Variations in above being Polygonum to roadside
 - Live oak - seedlings in Baccharis douglasii area.
 - Baccharis douglasii - dense dominant under live oak
100' from W area of lake
- Quail - large [covey] flushed from Polygonum above - 15' from lake edge - many young
- Coots - only birds on all of lake - few.
- Fox scat - 100' from road on S.E. part of lake (towards Q. dumosa site. Eight or ten seeds of Prunus ilicifolia - some partially to nearly all covered with skins. Detached wild cherry skins are rolled and quite like what appears to be acorn tests in other scats - but not the same, I think. Prunus skin remains blackish.
- Prunus ilicifolia - heavy crop of wild cherries - now red to black.
- Buckeyes - leafless up serp canyon 1500' from lake. Few buckeyes - many trees with none.
- Xanthium stramonium - many as before in great inlet
- Xanthium spinosum - 1 only in inlet on sandy base of bank (1st record for us for J.R.?)

October 13th 1963

To J.R., end of Mantilla Dr., 11:40 A.M. after visit to remnants of Cooper #s 3,4 & 5.

Weather: - Clear, sunny, still. Rain (.12" of 10/9/63) cooled ground. Heavy dew. Temp last night 42° Autumn is here.

Edge of J.R. reserve, foot of N.R.

- Nuthatches - 3 in 50' area. 1 twice flew to ground - end of Mantilla Dr.
- Cal Jays 5 in 100' Spruce - noisy.
- B. Wren - 3 in 50' area -
- Br. Towhees - 2 along fence
- Sp. Towhees - 1 heard along fence in blackberries
 - prob 3 on line C.M.W.
- Fox Squirrel - 1 in l.o.
- Chap. Current - grows in disturbed chap. Areas -
- Quail - Small covey inside fence near field - heard, lower C.M.F.
- Flicker - 1 in l.o. bet. fence and field - lower C.M.F.
 - 1 in l.o. opp. Grass pt. - flew in then out.
- Calif. Woodpeckers - heard 2 in upper C.M.F. oaks- also 1 in mid C.M.W.
- Live Oak - sapling to 4' drowned in extended willow-cattail area
 - N. of vernal pool. (Willows to 18")
- Baccharis - none here in range of cattails from old N. trail entrance to N. corner oak.
- North trail entrance now impassible -
- Deer heavily using lower C.M.F.
- Western Tanager - im. ♂ up 20' in l.o. (much l.o. cover) 50'
 - So. of baneberry site towards grass pt. Fine view of bird
 - it flew W.
- Sapsucker - im. In live oak up 15' near above - (saw both in grass at one time) Had heard light tapping.
 - also heard near C.M.Cr. in cottonwoods.
- Cal Jays - nuisance. Prob. 7 in line C.M.W. - 1 with acorn quiet.
- Steller Jays - 2 near C.M.Cr. one came to within 10' of me with acorn in bill.
- Chickadees - 4 near Grass pt.- occasionally hanging in lichen.

10/13/63 (cont.) -

- Fox Squirrel - Black phase - bet. baneberry site & Grass Pt. in l.o.
- Fox Sparrow - in p.o. up 6' - opposite fox oak.
- Willow Goldfinch - 1 in willows at Laurel wood edge. So. trail - up 10'.
- Wren tit - 1 heard - mid C.M.W.
- Chipmunk - 1 heard near Fox oak -
- C.M. Cr. - running 2' to 3' wide --


DH

October 27th 1963

Top of Jasper Ridge alone 9:30 AM - from Goya Rd.

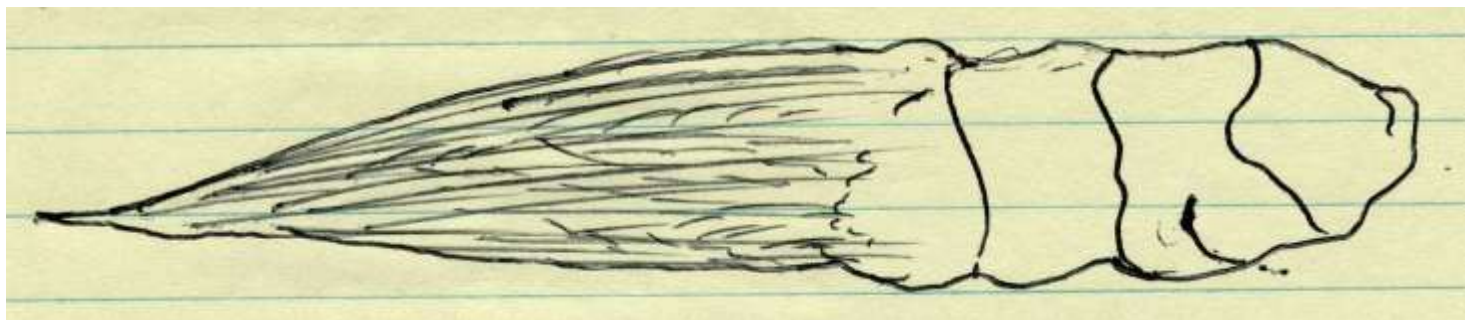
Weather: - clear, cloudless, excepting cirrus clouds S.

N.W. breeze.

- Larks - 1 on round encl. post
 - 1 near #16 on serp.
 - heard at 500' to 1000' intervals on J.R. grasslands.
- Cal Jays - 1 in quad oaks
 - 2 on line at S.F.Cr.
 - scattered throughout, giving appearance of greater than usual abundance. Some with acorns.
- Aspect Serp - some patches to 3 or 4 yds across with no green.
- Robins - 1 heard, later flying N. from close to #21
 - about 10 qt S.F. Cr. redwoods and creekside trees, much high tree flyinf about.
- P.O. - Baccharis area 125' S. of Holy oak.
 - 8+ G.C.Sparrows
 - 9 G.B. Goldfinches
 - 1 Sp Towhee
 - 1 Br. Towhee
- Solidago californica (Goldenrod) - more widespread than ever at grass island - to seed.- falling
- Goldback Ferns - green, slightly curled, - more widespread? Holyoak to relict.
- Relict-
 - Top of Rock above [Freddies] nest.
- Fox scat - old large - 3/4" dia - looked like wildcat scat, but had prune seed, and grasshopper parts only, excepting for large mass of very fine, linty hairy stuff - gray. This burned and smelled like hair, but didn't look mammal-like. It was felt-like. Mid-part untwisted  - full felt except for grasshopper legs. Scat terminated in over 50 heads of dry Gastridium ventricosum all layed parallel, (See over). (See over).

10/27/63 (cont)

- Fox scat at relict (cont) - (2 masll ones not sketched)



- Buzzard - "Freddie's" nest not used this year (Freddie - last year)
- Black oaks - showing little yellowing at Holy Oak and redwoods below
- Maidenhair fern - dry and brown - from grass island to S.F.Cr.
- Polypodiums - to 9" on E redwood rocks - Response to rain is similar to grasses.
- Yerba Buena - new full leaves in response to rains.
- spect - S.F.Cr. running well as a clear brook 5" and 3" over "falls". few leaves fallen. - (Running since recent rains.)
- Beach 100' below falls cut by small rivulet last year. Now running 18" to 30" wide - 18' long - 2" deep. Growing in this shallow running water is: -
 - Sonchus asper - sev to 9"
 - Apiastrum angustifolium - 1 to 14"
 - Gnaphalium palustre - 1 - 18" few small ones
 - Geranium dissectum - 10 - 5" to 9" (full 1" leaves)
 - Epilobium californicum (see Mason) - ~~20 new rosettes~~
1 new plant to 9"
 - Picris echioides (Ox tongue) - 2 rosettes - 6" leaves
 - Nasturtium officinale - 1 to 2"
- 1 foot from above water-edge
 - Poa annua - full bloom - 6" tall
 - Stellaria media - to 8" - large leaved
 - Lythrum hyssopifolia - 2 new plant to 4"
 - Polypogon interruptus - 2 or 3 with full heads to 8".
 - Navarretia squarrosa - to 8" - full bloom - long gone elsewhere

10/27/63 (cont) -

- S.F.Cr. on line (cont) -
- *Xanthium strumarium* - few scattered along creek bank -
not previously noted
- *Clematis ligusticifolia* - to 8' - trailing over rocks N.
border of creek close to water - E edge of line (Full leaf).
- Sedges - in and along S.F.Cr. heavily grazed by deer
- New grass - ungrazed along creek.
- Band-tailed Pigeons - 3 or 4 in laurels across S.F.Cr. from
E edge of line. Later - 20 over top of J.R. - to So.
- Juncos - few about S.F.Cr. - not more than 3 or 4 seen.
These winter visitors seem fewer.
- Flicker - 1 in Alders - S.F.Cr.
- Sapsucker - heard near S.F.Cr.
- Kingfisher - dived for fish 50' below falls, then perched
6' above water on Alder limb for a minute ±
- then low 4' to 8' upstream out of sight (dandy view)
- *Agrostis exarata* - new growth along S.F.Cr. to 10"
- Laurels - full green fruit - many ripe and falling.
- *Amaranthus graecizans* L. - very few on sandy bank
TO 16" -
- *Chenopodium ambrosioides* - few - 1 to 20". Full seed & bloom
- *Equisetum arvense* - close to water on gravelly flats
This distinguished from *E. palustre* by having solid
branches - Hollow in *E. palustre*.
- New - *Paspalum dilatatum* - coll - 1 to 20" - N.E. sand bank - S.F.Cr.
on line. Erect- heads with long silky hairs.
- Quail - 2 flushed N E bank- 90' below falls.
- Chickadee - hanging on large cluster of honeysuckle
berries feeding on insects - 4' above trail, just
above redwoods.
- Hyla - heard by big rock 30' above falls - 1 farther upstream.
- Madrone berries - big crop- ripe and falling
- Blackbirds - 25 - SW over top of J.R.

Off line 1:35

Nov 3rd 1963 - No trip

November 10th 1963 -

On J.R. Biol. Res. 10:45 AM - end of Mantilla Dr.

Weather:- Clear - sunny.

- Earlier went to S.P. -

- Polygonum - much more widespread than ever before -
mostly dry, but with frequent stems bearing green leaves.

- Typha & Tules - much more dense on roadside than previously

- Pond - full, but hardly visible from road.

- Injured Coot with broken wing - put into water - Swam to
dense tules - with ease.

- Ring-necked ducks - three rose from pond to S.L.

- Audubon warblers - saw "several" - all edges of fields

- Chickadees - feeding about p.o. berries - mid C.M.W.

- G.B. Goldfinches - heard in C.M.W.

- Blooming -

Pimpernel

Erigeron Canadensis

Tomentilla

Amaranthus or Chenopodium ambrosioides

Brassica nigra - (since August) -

Helenium

- Cal Jays - 10 to 12 - bet Mantilla Dr. & S.L.

- Wren-tits - 4 in p.o. within 4' area - 150' W/ of Nolan Cr. Delta.

- Tarweed - still blooming - also new ones by trail near Great Lupine field to 5/8"
in moist soil.

- Fox scat- fresh - 150' from Searsville boundary on swamp trail
containing nothing but grasshopper parts. And about
20 undigested eggs - oval, white, translucent to 2.5 mm.

- Cal. Gull - 1 on mid Searsville Lake.

- Ring-necked Ducks - about 8 - S. 1/4 of S.L. not seen elsewhere.

- Grass - to over lawn height throughout, but hidden by tall dead grass.

Off J.R. 12:30 noon

Dec. 1st 1963

On J.R. from Goya Rd alone - 11:10 AM

Weather:- clear, still, hazy.

- Fox Sparrow - 1 in chap. above trail near edge of Westridge
- Quail - heard from chap. (brush) bet. top of J.R. & E. serp.
- Br. Towhees - 6 to blue oaks, cor. of "road" - and trail to E serp - later into nearby C. cuneatus
- Gopher - much activity on open slope beginning 30' S. of Keith oak
- G.C. Sparrow - 1 call heard S. of Keith oak about 200 yds. few seen. Seem to be fewer this year than previously
- Jack rabbit - tracks in dew on grass W. of Keith oak
- Deer - 1 doe, 2 nearby full grown fawns -flushed 200' N of Keith Oak
- Larks - (saw 10 min. previous from S. to 200" E. of old corral)
 - Flushed 63 from above spot - not all at once: 51-7-3. All but 2(1st flight) to 50' W. of corral. The 2 to nearest live oak top - but joined flock within the minute.
- Cal Woodpecker - 1 top of tumble-down oak

Quads- Quad #15 - 3 Stipa, 1 Sitanion. grass and dicots to less than 1" mostly.

- Quad #16 - About 16 clumps of Stipa; 1 Sitanion. Green to 2" here - much dry grass standing - mostly B. mollis.
- Quad #17 - 8 to 10 clumps of Stipa prob. Much dry stuff standing to over 18" in lower (N) part of quad. 2 Sitanion in quad easily spotted by dry awns.

Aspect.Sitanion

Stipa p.



Strongly evident in clumps, but in many places difficult to isolate for counting because of B. mollis, and even clumping Melica California. Off serp, dry Lolium to over 24" complicates matters.

- Tarweed - few still blooming - reddish under corollas noticeable.
 - New plants throughout - leaves 1/4" to 3/4".
- Soap Plant - leaves 2" to 4" on serp - but only within limits of Calycadenia on line and 100' W.
- Robins - 6 from N. to S. high over line. Only ones seen.

12/1/63 (cont.) -

- Bromus mollis - scant in limits of Calycadenia - abundant elsewhere on serp on line above "road" (12" - 18" tall)
 - Blue oaks - rusty throughout but duller in color than black oaks 2-3 wks ago.
 - Black oaks - still with leaves, tho leaves mostly gone.
 - Red-tailed Hawk - E to W over Holy Oak
 - Poppies - on serp at #14 - leaves to 4" - also found off serp.
 - Buttercups - leaves mostly 2"- 3".
 - Sun Cups - leaves 1" - 3" - edge of burn, - by "road"
- Burn- Burn of Aug 1961 evident to So by greater amount of dry Stipa and Lolium standing off burn
- its also tall off burn.
 - Nuthatch - 1 heard in quad oaks.
 - Rodents - (mice) - Excepting quads #14-#15 area where veg is very sparse, runs are everywhere on serp - as well as off. Some of these may be gopher runs above ground.
 - Cal Jays - 3 heard bet Westridge and W of line - few as compared with month ago.

Off J.R. 12:55

- Vicia (narrow-leaved) on dome in usual spot above #12

Note: -

[November] 24th no trip - 13th anniversary - a sad one because of Kennedy's murder.

November 17th - ~~trip to Searsville no notes - about 8 or 10 ring-necked ducks and half dozen coots on S.L.~~

Trip to E serp - thence to line - top of J.R. -/ Clarkia to 1" / Tarweed on E serp. showing much red / Eriogonum vimineum many blooms - E. serp. / Juncos- many SW edge E serp in live oaks / Jays - frequent / Wild Pigeons - sev. flights of 10s to 30s towards mountains - some 60+ in all.

Dec 26th 1963.

- On top of J.R. - Goya Rd. to line with Ron - Cool dusk
- Horned Owls - 2 in large val. Oak at round encl. One flushed to oak 500' N - second flushed as I approached - some 15 seconds later -
- another heard S.S.W. from oak across serp.

Dec. 27th 1963 -

- On top of J.R. with Ron - 10 AM
- Weather:- airo-stratus clouds over mts - otherwise clear - still
- Blubirds - 8 to 12 opp. Keith oak in oaks
- Linnet flock - top J.R. - not seen as much, or not as noticeable as in grazing days.
- Red-tail Hawk - 1 circling over ridge, prob 1 of 2 seen later over Holy Oak & W. - 1 screamed to S.W. not high across serp.
- Larks - 62 from serp 100 yds S.E. of Hodge oak to dome
 - chatter - Earlier notes near Keith oak - round encl and dome -
- Towhees - 8 - [Hodge] oak near W. end of serp - C. cuneatus
- Hutton Vireos - 2 in b.o.s. near above -
- Cal Jays - 4 bet serp & Searsville fence - heard -
 - 1 seen with acorn -
- Shrike - in p.o. clump - N. cor of serp -



On this day we collected soil with Clarkia by 3rd Enclosure From E. boundary of J.R. This a first sample for Ron's PHD dissertation.

Jan 5th 1964

Top of J.R. from Goya Rd alone

- Thrasher - 1 on trail 100' from Goya Rd

- Titmouse - 2 up 15' in l.o. " " "

J.R. foot of S.E.N.R. - 11 AM

Weather: - remarkably clear - cloudless - warm. Rising N.W. breeze
Some frost in constant shade. Ice in So trail entrance C.M.W.

- Fox squirrel - 1 - 50' N.W. of end of Mantilla Dr. to tall
val oak stump outside of reserve.

..- 1 in dense l.o. foliage S.E. of buzzard oak barked (scolded).
In response, another made its way from l.o. at grass point
Thru l.o.'s and coffeeberry to join the first - at least 150'
away. This in about 2 minutes - necessarily devious. After
both being in a thicket area of limbs, one left almost at
once. All was quiet. I approached site from grass pt.
by trail, and intercepted the one that had left and was
returning to "thicket" - but it eluded me. Neither could be
seen - Nest? Thick growth on ends of limbs caused
by limbs having been broken by fall of great val. Oak about
13 years ago.

- Fox squirrels - 5 on one 50' Salix lasiandra - in swamp
about 100 yds from lake - Much milling about, but
little conflict.

- Wren-tit - 2 near gate at S.E. bottom of N.R. in l.o.

- 5 bet outer and mid CMW on line in brush - up to 15'

- 4 or 5 from mid CMW to CMCr - low in p.o.

- 1 heard in swamp-

- Downy Woodpecker - 1 pecking on 1 1/2" dia. p.o. stek up 15' -
S.E. base of N.R. -

- Flicker - high in l.o. near grass pt. - later high on p.o., 150' S.


- Hutton Vireo - in " " " " - also in swamp - frequent.

- Thrasher - in coffeeberry on ground 100' E buzzard oak.

- Fox Sparrow - near Fox oak on p.o.

- Quail - covey - So of grass pt. area.

1/5/64

- Sp. Towhee - 1 in p.o. So foot N.R.
4 in outer to mid C.M.W.
3 bet S. grass pt and laurels.
1 dead (feathers fresh last wk) So trail entrance
C.M.W.
- Brassica niger - bloom and siliques - near CM Cr. by trail
- HOH CMCr. - running well despite 5 week drought.
- Cal Jays - about 6 bet foot S.E.N.R. & mid C.M.W.
- 5 mid CMW & C.M.Cr. - possibly some of
the same actors - Little acorn carrying this year?
- Titmouse - 2 in l.o. mid CMW
2 in CMW - N of grass pt. - feeding in lichen up 20'
- Bush-tits - flock in l.o. near "laurels" along So trail - CMW
- Steller Jays - 2 at least - mid CMW in oak top & at CM Cr
broad overlap with Cal Jays.
- Her. Thrush - 1 near great fallen oak in p.o.
- Chipmunk - on oak stump near fox oak - CMW sunning
- and climbing in p.o.
- Chlorogalums - to 6" throughout - much in Baccharis-grass,
Buckeye-grass
- Coots - only 3 on S.L. - nothing else
- Nuthatches - 2 on willows in swamp -
- Aud Warbler - in tall willows of swamp - flycatching at times
- Juncos - bet line and N. Cr. delta - about 12 from ground
to tree line.
- Sapsucker - Willow - below great Lupin field.
- Pitcher Sage - new leaves - to 1"
- Jays
- Wren-tits  from regional abundances, dispersal hasn't taken place.
- Sp. Towhees

Off J.R. 2 P.M.

- Wild Cat scat on trail near Searsville -hair - 1 bone (part of scapula) -
- Fox scats - 1 mid CMW-So trail - 2 on trail to Searsville.

Jan 13th 1964.

On J.R. alone - S.W. foot of N.R. - 9:20 AM

Weather: - high thin but complete overcast 35° at home

- Gray day - 45° at home at 11:45 AM

- Sharp-shinned Hawk - from Ernie Ford's field to top of l.o. by "laurels" on line near CM Cr.
- G.C. Sparrows - about 12, end of Mantilla Dr. in grass flying low over and into blackberries, and thru coffee-berries. Never all flying at once as they would have had they been flushed.
- Sp. Towhees - about 6 bet. Westridge fence and field below cut-off. Common & almost abundant in brush of S.W.V.R. area. Heard throughout - seen frequently.
- Br. Towhees - in brush and woodlands edges of grass - common. Five - lower edge CMF below cut-off.
- Cal Jays - Common - throughout - roughly 1 met with every 100 yds. 1 near Searsville with acorn.
- Juncos - 14 at Baby-blue Eye site at fallen oak, upper CMF. - in grass and about brush.
- B. Wren - 2 in brush near "delta" - noisy. Courtship > aggressor tail spreading
- Thrasher - 1 up in blue elder 12' - alarm notes. Nolan Cr. bend 1 in chap. above So. corner S.L.
- Purple Finch - 1 fine ♂ low in p.o. and dense shrub to up 12' in C. cuneatus
 - 3 in tangle at baneberry site So trail in CMW
 - 2 of these ♂ - color seemed strong in gray light.
- Bluebirds - open hillside about 800' NW of N. bend of N. Cr. - 3 bluebirds in mistletoe in single small blue oak - feeding alternately - sometimes 2 together briefly. Much perching and facing thin sunlight. Shortly joined by 3 more from nearby small b.o. Suddenly 8
- Waxwings appeared up 30' - quickly dropping into small b.o. 4' from mistletoe. Attempts to feed were thwarted by bluebirds. This was a one to one encounter with no contact made. Never Did more than 2 waxwings try at once for mistletoe berries.

1/13/64 cont.

- Bluebirds - Waxwings - Nuthatches (cont.) -
 There were no strenuous forays here, but bluebirds met every Waxwing approach. Notes were heard from both sides. After 3 minutes of no success, the waxwings flew off in a rather erratic but together flight - to high (perhaps 200+') over distant Nolan Ridge.
 - G.B. Goldfinch - hillside song E of S. corner of S.L. about 8 in [Tocolate] still standing dry.
 - about 8 or 10 in grass corner below "cut-off" - mostly on Tocolate.
- Searsville Lake - S.E. corner
- Canvasbacks - 10 - not together - 1 diving several times
 - Black-headed ducks - 40 - scattered in small groups -
 These flew later in 6's and 10's to W beyond "bridge".
 - Coots - 8 - scattered
 - Pied-billed grebe - 2 seen near SE corner with ducks.
 - [Cal] Woodpecker - from hill above lake to oak near swamp and to willows - near S.L.
 - Titmouse - 1 - fence and oak near So. cor. of lake on hillside.
 - Hairy Woodpecker - 1 seen from [swamp] trail into willows of swamp (Downy?) near "lupin field".
 - Red-tailed hawk - Immature - (banded tail) perched high in oak above lupin field after circling field N of heron rookery.
 - Steller Jay - screamed in swamp shortly after above.
 - Chipmunk - S.E. of S. trail in C.M.W. 1 in p.o.




Off J.R. 11:40 - birds had quieted down

Jan 20th 1964 -

On top of J.R. from Goya Rd. - alone - 9:05 AM

Weather: - Rainbow from S.F. Cr. to N. Cr. Intermittent rains with growing, rising So wind.

Rain - 24 hrs. - .42" - temp now 50°

- Br. Towhee - J.R. fence post - chirps by chaparral.
- Red-tail - flushed - to rising circles 150 yds N of E serp then flew low to West.
- Buckeye - 2' seedling with open leaves to 1 1/2" 200 yds N of E. serp. Nuts with hypocotyls in ground throughout.
- Cattle - 3 flushed in above area from beneath [Cays] l.o.
- Snowberry  some leaves full size - by old "road" in canyon
- Blue Witch  N side J.R.
- Canyon - E part of reserve, N.J.R. Live oak canopy high  much toyon & p.o. beneath. Honeysuckle rampant.

- Sp. Towhee - 1 on and in brush -
- Wren-tit - 1 seen quiet in brush
- Cal Jay - 1 came into the area - and left.
- N. Vireo - 1 seen in live oaks
- Chickadees - 6 or 8 in area
- Hairy Woodpecker - on l.o. - quiet.
- Kinglet - high in l/o/
- Nuthatch - lower in l.o.'s -
- Siskins - prob. flock high in canopy of live oaks/ It was at first that that these were Pygmy nuthatches because of behavior. No light napes detected - but still a strong possibility.
- Edge of Baccharis on J.R. above Webb Rancj
 - Quail - covey heard far bank in brush
 - G.C. Sparrows - prob. over 100 along long edge of brush
 - Br. Towhees - 6 with above
 - Cal Jay - with above -
 - Flicker - from ground towards Cr. near above brush line

1/20/64 (cont.) -

- Steller Jay - redwoods near S.F. Cr. - 100 yds below line
- S F Cr. - turbid - 10' across at "falls" - to 20' - noisy.
- Fox Squirrel - on ground on trail S. of N. bend of S.F. Cr.
- Thrasher - sang in p.o. near N bend of S F Cr.
- Tarychas - scattered along NENR - more frequent
and no apparn pattern
- Sharp-shinned Hawk -(prob) - to SW. from N. bend field
- Nuthatch - above my old shack site.
- Rodents - top N.E.J.R. to S.F. Cr. abundant - wherever
grassland appears - runs and burrow everywhere.
- Meadow Larks - 2 at Hodge Oak on fence in song
prob. est. territorial boundaries.
 - 1 heard from oaks on dome
 - 1 " " tumble-down oak. This one
flew to ground near #16.
- Juncos - few in blue oaks at W end of serp -
- Vulture - 1 to E low over J.R.

Strong wind grounded most birds - excepting in
Protected areas.

Proj. M disturbance now considerable across Cr from
J.R. Tremendous amounts of earth moved -

Off J.R. [11:40] AM.





Feb 2nd 1964

At Searsville Pond 8:25 AM - J.R. from Mantilla Dr. alone 9:30 AM

Weather:- 5th day of false spring. Clear, sunny, (40° min.)
slightly rising N.W. breeze - Patch of Acacias in bloom
above S.P.

- Coots - about 20 on pond
- Ring-neck Ducks - about 35+ on pond - mostly towards W. part.
- Canvas-backs - 3 (maybe 4) - on SW part of pond.
- Cinnamon teal - 1 pair crossed pond to N outlet - then back
- and flew 150' to So. side. The pair stayed together
rather closely, the male in front.

So. corner N.R. - up trail along border fence.

- Trail overgrown thru disuse. Game trails forming a net
above in grassland - blue oak qreq.
- Sp. Towhee 
- B. Wren  heard - so bottom N.R.
- Thrasher
- Cal Jays - 3 in blue oaks S.N.R. - 1 with acorn
- Juncos 8 - in b.o.'s - top of N.R.
- Hutton Vireo - 1 in b.o. [in] incessant - cha-wee-(territorial song?)
- Titmouse - frequent notes in bl. Oak - top of N.R.
- Buckeyes - at "[desk]" -1 leaflet to 2" -
- only 1 limb with breaking buds. SE facing.
- Grossularia - to almost full leaf throughout.
- Dirca -  almost full leaf - top N.R. & W - facing end
- Blue Witch  of N.R. some quite leafless
- Sanicula crassicaulis - full leaf - basal rosette only
- Quail - mid S.N.R. - 7 heard - 1 seen quietly walking in
Adenostoma - top of N.R., w. of trail
- Robins - 4 to N over N.R. - and over Searsville Lake
- 2 in oak later - lower C.M.F. border
- HOH - N.Cr. & CM Cr. - running well - clear -
Cooper quad #9 - NW 1/4 - in places 20 Aster radulinus per sq. ft.

Feb 9th, 1964 -

To Searsville Pond 9:45 alone - thence to Mantilla Dr., CMW.
N. Cr. - then to hilltop above herons nest.

S.P. - 7 ring-necks
2 - muddy ducks
8- + coots -

Weather:- cloudless, occasional N.st[] - sunny, beautiful day.

- Sp. Towhees - 5 to 6 bet. end of Mantilla Dr. & line.
- Br. Towhees - 2 to brush by So. trail entrance, common
at brush lines today
- Cal Jays - 4, W of line at edge of C.M.W. - 3 or 4 on
line in C.M.W.
- Siskins - 6 from small deciduous oak by So. trail
entrance to high then to oak at edge of CMW - West.
- Trilliums - unrolling to 8" tall - 30 ' into CMW from
baneberry site, by trail. Same - few at N.Cr.
delta.
- Quail - few in grass pt.
- Wren-tits - 2 near fox oak
- Juncos - heard mid - CMW
- Redtail - circling from hill opp. heron rookery.
- Herons - horseman told me some were about his house (near
Schulte's) this morning. None at rookery. About
20 platforms in leafless cottonwoods
- Grossularia calif - on hilltops of SW JR, this is scattered
between grass (with oaks) and chaparral - shady chap border
- Chenopodium calif - not common - usually in some shade
often oak and near chap. border. Here atop hill
under l.os. in line projected W by N.Cr. (basal leaves only)
- Hounds Tongue - leaves to 8" - first seen
Off J.R. - 11:25

Feb 16th 1964 -

On top of J.R. with Ron about 11 AM after visit to S.P.

Weather:- beautiful and clear -

To E serp - to 3rd encl. site to check Clarkia site - Thence
to line on serp and to Hodge Spring.

Dodecatheon patulum - 1st few near round encl. - more
W. of Hodge oak -

- Br. Towhees - about 8 near (N) of Hodge Spring -

Fire- P.O. - to 3' Ron took 1 photo of p.o.

- Blue Elder } all stump sprouting -

- to 5'
clump showing succession on bare ground -

Sanicula crassicaulis - few

Baccharis p. - scant - scattered

Anthriscus scandicina - to 2' - dry, old. from last year in dead
tangle of unburned p.o. branches -

Hypocheiris radicata - [Jen]

Check others - (The above from memory - 3/1/64

- Mistletoe - bloom & past - buds?

Clarkia - Ron says that his hot house Clarkias in
serp soil look about like those on ridge -

- tallest - 2". However - those separated

but still in serp soil double the height.

Reason - no competition, other factors about equal.

Feb. 23: 1964. no trip.

March 1st 1964 -

On J.R. from Mantilla Dr. alone - 12:30 noon

Weather:- So. wind - drizzle. N.W. wind in gusts at times,
very thin sun occasionally . Summit barely visible
thru sheets of drizzle and sun - Beautiful day.

Blooming

- Hounds tongue - early stages - few full flowers - prob
1 wk.
- Trillium - Few blooms as compared with number
of plants - prob. because of drought early.
- Sun cups - several blooms in higher fields.
- Zygadene - in bloom in chap areas esp. higher on hills.
- Osoberry - C.M.W. - blooming near buzzard oak
- Dirca - much bloom.
- Winter Current - blooming for over 1 mo. More
widespread in C.M.W. since since flood. Seems to
quickly come thru alluvium.
- Salix lasiolepis - commonly in bloom - but not peak.
- Laurel - since Dec or Nov.
- C. cuneatus - widespread but not full on S. facing slope.
- Hillside gooseberry - for over 1 mo. - leaves showing in
other leafless thickets on hillside above swamp.
- Blue witch - much bloom, but only in brush and chap
on high S - facing hillsides.
- Chickweed - abundant in shade.

Birds - Red tail - flushed into flight in rain 1000' W of trench

- Sp. Towhees - 3 along So. trail to baneberry site.
- G.C.Sparrows - 8 to brush at S. trail entrance.
- Cal. Jays - common - heard - C.M.W. from hillside.
- Chickadees - sev. - oaks at grass pt.
- Herons - 19 seen in rookery as seen from up W. end of J.R.
In 1/2 hour only 2 flew, only to circle and realight.
Some platforms with 2 birds, some with 1, some perched away from nests.
Off line - 2:15 PM.

3/30/64 -

(13)

~~Pholistoma curvum~~

Amphibia heterophylla

subsp. *pub. n. sp.*

Pholistoma - coll. *P. consida* - ?

36' low grassy soil, but not ground

anthers not spotted

trichomes not glandular

spur very short

P. consida ~~*brachyptera*~~

~~about 10' high~~

(not ground)

anthers spotted

trichomes glandular

spur - 1/2 tube

bract spots on corolla lobes

P. callosa *insignis*

26.5

10/15/63 -

Echinochloa crus-galli var. *frumentacea* (Roxb.) W. F. Wight.

Japanese Millet -

1st - C.M.Cr. bed - sandy bank on line about 100' from So. corner of
J.R. boil. Area -

Xanthium strumarium L. - 1st on line - bloom at above site

Xanthium spinosum - not "checked" in Thomas - (not on our list) - I think by
trail


In C.M.W. opp. fox oak - ?

Eriogonum nudum - by trail below big lupine fields -

March 8th 1964

To top of J.R. from Goya Rd. alone - 2:45 P.M.

Weather: - clear, cloudless, sunny - N to N.E. breeze

- Brown Towhees - 2 to buckeyes bet Westridge's border and trail to E serp
- Quail - heard - covey of quail in above buckeye grove.
- Redtail - low over M.E.J.R.
- Buckeyes - near Westridge top of V.R. - some leaves about full.
- Indian Warriors - not yet in full bloom.
- Bloom on E. serp.
 - Poppies in patch on round south-facing slope, 45 flowers in 20' sq. - very sparse to wanting elsewhere - not this many in adjacent 2 acres
 - Linanthus - beginning. 1 blue - several large white.
 - Yellow lomatium
 - Plantago erecta -
 - Tillia
 - Calandrinia - 4 patches blooming on E serp - all on last year's ant hills.
- Calandrinia towards 2nd encl. 2 patches on exposed break on rocky slope 
- Black oaks beginning bloom.
- Clarkia - near 3rd encl. where dug by Ron and me on Feb 16 all plants virtually unchanged - still mostly under 2"
- Swifts (white-throated) - 4 or 5 seen 1/2 mile (about) N to N.E. of E. serp. - White flanks seen
- V.G. Swallow - to low over meadow near blue oak bet round encl and old corral site.
- Dove - 1 heard near (N) of 3rd encl.
- Dodecatheon clevelandii var. patulum - still in good bloom S.E. of round encl. and W. of Hodge oak
- Owls Clover (Q. densiflorus) - beginning bloom - serp on line
- Orthocarpus pusillus - " " - serp. W of line.

March 16th 1964 -

On J.R. from Mantilla 1:20 - 2:45 alone.

Weather:- quiet sunny day - 72° light N. stir - beautiful day.

- Hounds-tongue - perhaps not more abundant this year, but large full blooming plants abundant.
 - *C. cuneatus* - small heavy, top of N.R.
 - Redtail Hawks - 2 circling from low to quite high over C.M.F. - one often with feet hanging down. Often circling in opposite directions, one from them other.
 - V.G. Swallows - prob 8 or more in very rapid flight about upper C.M.F. oaks where they usually nest.
 - *Dodecatheon hendersonii hendersonii* - good bloom on hill E of cut-off - no fruiting yet, so not coll.
 - *Lomatium dasycarpum* (prob.) - white bloom - just W. of cut-off.
 - *Barbarea orthoceras* - bloom. CMW trailside
 - Sp. Towhee - brush inside edge CMW as usual.
 - Br. " - [toto] " - " " .
 - Steller Jay - CM swamp - several heard
 - Cal Jay - 1 close to above
- Pressed- Winter current - 200' W. buzzard oak.
- G.B. Goldfinch - 1 to So over CMW.
 - Song Sparrow - song in p.o. near CM Cr. at buzzard oak, as usual.
- Pressed- *Salix coulteri* - leaves and capsules - pressed from our lot - no staminate flowers here. Couldn't find the site in C.M. Swamp W.S.W. of buzzard oak.

Rainfall 1975-76 (9 A.M.)

	Trace
Oct. 10, '75	.7
Oct. 11	.4
Oct. 12	.3
10/27	1.3
10/28	.25
10/30	.7
	in traces -
11/9	.6
12/12	.4
12/13	.05
1/9	.4
2/5-6	.6 melted snow - snow 2 - 5"+
2/14	.2
2/15-16	.35
2/19	.45
2/29	1.25
3/1	.25
3/2	1.2
3/3	.6
3/18	.35
4/3	.3
4/7	.1
4/8	.7
4/9	.3
4/11	.5
5/10 cherry rain -	.1

	12.3

Rainfall 1974-75 (9AM)

10/2/74	.4	
10/28	.9	
10/29	.3	
11/5±	.65	
11/18	.25	
12/2	.1	
12/3	.8	
12/4	.5	
1/10	3.6	interval rain of Jan 2 to Jan 10 -[hospital]- possible some fall before Jan 1st? hosp.12/31-1/9 -
1/26	.1	
2/1	1.7	
2/2	1.35	
2/3	1.1	
2/7	.2	
2/9	.8	
2/10	.7	
3/1 (2 wks) -	.5	
3/6	.6	
3/7	1.1	
3/8	.9	
3/10	.4	
3/14	1.2	
3/17	1.	
3/22	2.1	
3/24	.2	
3/25	1.3	
4/3	.2	
4/4	.3	
4/5	1.1	
4/6	.35	
4/7	.1	
4/16	.6	
4/17	.3	
4/25	.4	
	<hr/>	
	24.35	

Rainfall 1973-74 - 9AM

9/20	--	.15
9/23	--	.1
10/7	--	.6
10/8	--	.5
10/9	<u>week</u>	1.6
11/6		4.2
11/7		.2
11/10		.6
11/11		.7
11/16		1.
11/17		.4
11/18		1.6
11/21		.5
11/22		.3
11/29		.6 3days
12/1		2.5
12/13		.6
12/14		.2
12/22		.4
17.75 12/23		1.
12/27		1.7
12/28		.1
1/1 - 8	?	.2
	?	1.
2/1		.4
2/10		.7
2/18		.1
2/19		1.2
3/1		1.3
3/2		2.
3/3		1.4
3/26		.1
3/27		.4
3/28		1.4
3/29		.1
3/30		.5
4/1		1.2
4/2		2.1
4/23		.3
4/24		.45
5/17		.2
6/19		.20
		<hr/>
		34.80

Book had no page 99.

May 19th 1973 - (Mama's 88th birthday)

Fog on mountains - some cool wind. To C.M.F. alone.

- New
- *Heterocodon rariflorum* - found in considerable mat in
5/18/73 moisture just below Hodge Spring.
 - 5/18/73 - *Calochortus venustus* - 1st bloom W end of serp.
 - *Calochortus luteus* - never so widespread. Uncommon on serp
but present - also on grasslands elsewhere
Upper C.M.F. in tall grass but more abundant than ever.
 - *Grindelia hirsutula* - more widespread in Upper C.M.T. than ever.
 - Red-tail Hawk on buzzard oak CMW. - screaming.
 - *Delphinium hesperium* - very widespread this year - far moreso
and more abundant than I can recall.
 - Lupines - C.M.F. - all past.
 - *Madias* - up and about everywhere in grasslands.
 - *Stipa* - spreading well - noticeably - in upper C.M.F.
 - *Sitanion* " but not nearly as well as *Stipa*.
 - Chamise - approaching full bloom - abundant this year - as
2 years ago - Poor showing last year.
 - [*Elymus*] - spreading well - C.M.F.

May 27th 1973

- Searsville opened under new 10 year lease this week.
- Weather: - from blowing and cool (5/19, 20, 21) to rain (trace 5/25) to very warm today.
- Many details of small importance unresolved _ distributions of plants and nesting birds.
- Brodiaeas _ all in tall growth and abundance this year as I think never before.
- Viola ocellata - about 10 blooms this year at violet site.
- Cal Jays - immatures of large size new conspicuous, The jays all in [aprons].
- Mallard - 1 on Searsville Lake in shores. 5/25 - no other duck seen.

Some green about, but grass largely dry.

- Bewick Wren - Nest with young about 10 days ago by trail S.E. of Tiger Lily site - in ground 30' above S.F. Creek.
- Grindellia - abundant this year --
- Lupinus nanus - last blooms -
- Navarretia viscidula - past bloom - in tall grass by trail at N.v. site - about 10 - plants found 5/25
- Quercus dumosa - full bloom 5/25.
- Sanicula crassicaulis - stem to 48" seen today N. of S.L. beach about 800'.
- Brodiaea elegans - common this year - more so than in past it seems.
- Phacelia californica - 10' from S.F. Cr. at road crossing - (W. side) - from Whiskey Hill Rd. entrance.

June 1st -

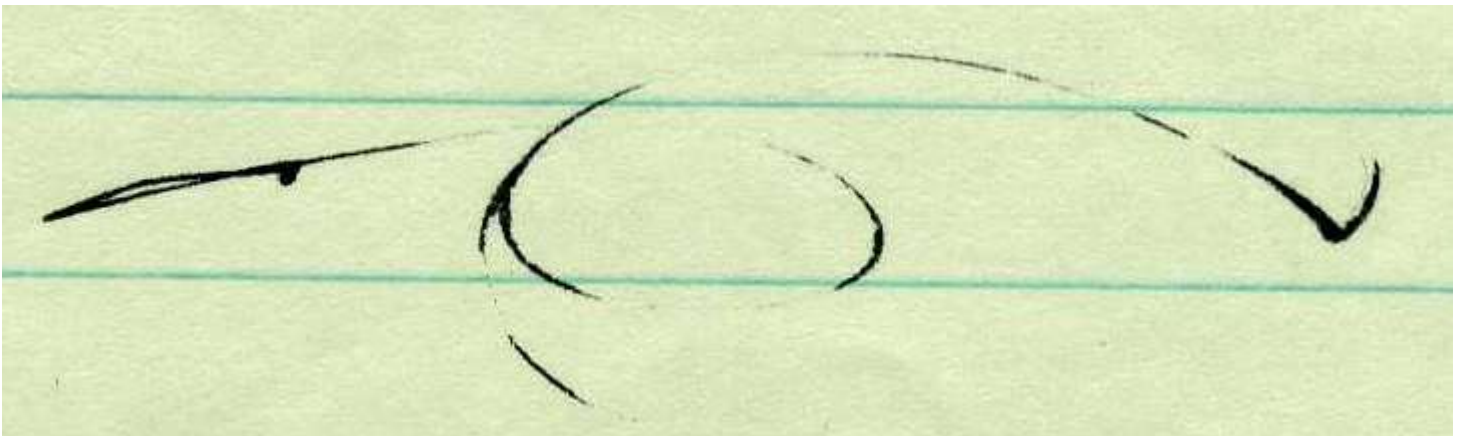
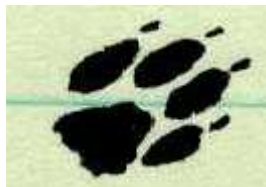
- Steller Jay - touselled young flushed at violet rock site. It flew across S.F.Cr. - It and parents in [aprons].
- Robin - young - flushed in our redwoods - fluttered to top of sand pile (far back terrace job)
- Black-headed Grosbeak - young along S.F.Cr. near violet site.

June 5th 1973

On top of Jasper Ridge from Goya Rd - alone 7:30 A.M.

Weather:- low dense overcast to 600' - disperses within 45 minutes
To later reach about 85°.

- Jack Rabbit - in "road" due S. of Keith Oak moving slowly about. Shook its head, its ears shaking magnificently, then sitting, lowering its right ear and scratching behind it -- in all looking much like our Audubon folio print excepting its pelage being grayer.
- Clarkia - on E. serpentine tangentially - a beautiful crimson 2nd enclosure dense. - This year is the greatest ever for Clarkia.
- Brodiaea elegans - abundant now. Other Bs. Passing.
- Coyote - I was tracing the edge of the chaparral (west side of chap. - opp. Lazuli Bunting site, Ron - checking the (Navarretia het.) lovely blue-on-base-edge-of-chap. Navarretia heterodoxa which gave way below to Tocolate. As I quietly emptied Zygadene seeds into my pocket, a young (nearly or full-Grown coyote trotted out of the chaparral 30' in front of me. At the "road" - ca. 100' away it turned to look at me. And I talked to it. It turned to trot on W.S.W. turning at intervals of 100+' as I talked or lightly whistled to it. Finally, at the top of opposite hill - ears in profile towards me, it shook itself and trotted out of sight. The coat was light, and quite lacking the dark crest down the back and tail. It seemed not to be frightened. Coyote trotting is very graceful. It was less shy than some dogs I talk to.



Sept. 10th 1973.

Recollections of daily visits since last entry in notes.

- Acorns - begin falling about Dad's birthday 8/21.
- Tarweed - at 2nd (from E.J.R.) enclosure - much less than in surrounding serpentine. At enclosure by quad #18 this doesn't prevail, but it is less serpentinized. 2nd enclosure has red patch of Eriogonum in and coinciding with range of last spring's Mimulus douglasii, which latter was first seen there this year.
- Skunks - tracks everywhere abundant.
- Foxes - for 2 weeks eating wild cherries.
- Amer.Egret - for 3 wks at Searsville Lake. Once seen in flight and landing 150' from Great blue heron - so. end of lake.
- Caspian Tern - 1 in flight and fishing - so. end of lake.
- Killdeers - 2 last week so. end of lake in flight - landed at beach.
- Snowberries ripe -
Lonicera
- Blue Elders - very large bumper crop of berries this summer.
- Salix hindsiana - on bars down S.F.Cr.
- Kingfisher below my shack site over S.F.Cr. - which is dry but for pools.
- Stipa - noticeable increase in serp.
- Acorn Woodpeckers - frequent now at tumble-down oak.
- Thrashers - in song - top of J.R.
Gun fire heard - (at doves) - Co[rm]elly place - NE of J.R.

May 5th 1974

On top of Jasper Ridge from Goya Rd with Ron and John McKean
 Weather:- fog on ridge - N.W. breeze, as for past several mornings.
 Aspect:- All is green - fields with very slight drying.

- 1st ever? - Western Kingbird - on wire on fence W of Hodge Oak - at
 end of fence - flycatching.
 - Festuca pacifica - reddish fescue along trail W. of serp
 chaparral.
 - Ron home for Tom's wedding -

May 6th 1974

On J.R. from Whiskey Hill Rd with Ron - 8:15 AM

- 2nd record - Cowbird - top of Alder by S.F. Cr. at bridge"- (concrete) below.
 S.F. Rocks - singing

May 7th 1974

On J.R. from Mapache Ct - (formerly Mantilla Dr.) with Ron
 Weather - fairly low fog.

- 1st on J.R.- Calif. Gray Squirrel - in dead live oak (downed tree) by
 C.M.Cr. near buzzard oak. I believe
 seen about Zoology Cabin in 1920's - on Portola Rd 1973 and
 Family Farm Rd. near Schultes' in 1969±, but this today
 was first J.R. positive sighting - A few wonderful
 tromps with Ron.

May 15th 1974

- Top of J.R. with Jim and Winifred Robson -
 - Gopher Snake - 3' on "road" on line on serp

May 21st 1974

C.M.Cr. and Nolan Cr. -

Weather:- cool - sunny.

Aspect:- Following a cool winter with 33+" rainfall
(no measurements) (home) - the grass in Jasper Ridge fields was
the tallest yet seen. Grazing was stopped 13
years ago - (I think) - see 1961 notes.

- Avena ssp. Commonly to 40", but most noticeable
is the apparent widely increased distribution and
density of Stipa pulchra. In a lesser degree
this is started by Sitanion jubatum and Stipa lepida
latter confined to chaparral and brush borders.
More noticeable is the first widespread appearance of
- Danthonia californica, which has abundant seed and
buds for the first time to become a noticeable component
of the grassland on top of J.R. growing to 2' with arched culms because
of heavy heads - (probably a usual circumstance).
- Stipa p. is forming first noticeable patches in grassland
- presence indicated by reddishness.
- Bromus mollis - seems taller than I recall it ever before.
- reaching better than 2' on occasion.
During grazing days B.m. was rare on serpentine. Now
it is abundant. Consequently wild flowers were fewer,
and sometimes stems necessarily longer.
- Delphinium hesperium - particularly on E. serp.
far more abundant than ever before.
- Delphinium californicum - seem[ing]ly never abundant
in trails in chaparral.
- Rodent population less in spite of tall grass.
- Horned Owls - none seen on top of J.R. last winter at dawn
~~probably~~ possibly because of fewer rodents?
- Lupine at old Baby-Blue-Eye site seen to be L. nanus and
old L. nanus X densiflorus hybrids. Top pods seemed 2-seeded often.

May 22nd 1974 -

S. F. Cr. - Searsville Lake

Weather:- beautiful - clear.

- Spirogyra? (green filamentous alga) appeared to 18' to 30' in S.F. Cr. in last week - unless obscured by higher, swifter water of up to this week. Our stone seen last week now obscured by alga.
- Blue Heron - flushed from shallow Typha doming[ensus] inlet.
- Coots - only 2 on lake, no other birds on water.
- Mallards - A pair, prob. same pair, can be flushed from almost any pool along the creek. Pair seen flying up S.F. Cr. below dam at tree top, landing just above dam by E shore. Female flew onto lake with 1/2" by 1" egg-like shaped something in bill - and swallowerd this before curious male arrived beside her from 150' flight.
- Iris douglasiana - more abundant bloom this year

May 23rd 1974

- Wood Ducks - 2 males flushed from under bridge at Southend of Searsville Lake. They flew out together to opening in Polygonum some 50' [S] of bridge - beautiful mature birds. Then as I watched them they flew off to land again - 100 yards S.W. They are wary.


May 24th 1974

- Kingfisher - So corner of lake in flight - up 30' - turned and flew back towards [by] inlet - Haven't seen one for many months.

Re-Lost Notes -
 Nov. 15th '74 -
 To
 Feb 15th, '75 -

Jasper Ridge field notes - Nov. 15th 1974 to Feb 15th 1975 were lost, presumably. Below is recall. I was not on the preserve between Dec. 30th and Jan 15th - (hospital).

- Weather ;- generally Dec. was cold and dry - Nov. 18th - Jan - prob. 1 1/2" rain. Jan. = 3.7", and to Feb 15th = 6" from Feb 1st.
- General Aspect:- There has been generally a lateness in growth and bloom -
- Pedicularis - 1st bloom seen with Ron - Jan. 16th± usually blooming by Jan 1st.
- Dirca - I was absent for 1st bloom.
- Ceanothus cuneatus - bloom ca. Feb.5th.


 Rodents - The number of rodent runs this year on grasslands exceeds any I remember. Grass is more protective, particularly in the overlay of dry grass. There seems to be considerable burrowing or use of old gopher burrows, probably mostly Microtus. There is hardly a square foot of grassland not traversed by such a burrow.

Kite - White-tailed Kite - for about 3 weeks, seen very nearly daily, perched or in flight. 1st seen about Jan 20th with Ron - 1 perched by Hermit's pit - flew along edge of NE wooded top of J.R. to W. On succeeding occasions flights mostly over wooded edge of top of J.R. with perches at above site, near round enclosure. large valley oak N. of round encl. 150 yds ±, Hodge Oak, W. end of serp in large oak, and in oak W. of dome where seen before in 1973. On one occasion, ca Feb 10th ± 2 were seen on ridge, not closer to one another than 200'. Feb 15th on seen in top of oak S. of Keith Oak 150'.

Quads - Have relocated most of my old quadrats.

Coyote- Coyote:- large dark, observed hunting along road next to suspected den patch of chap. Opp. Goya gate in blue oaks this one [flushed] [from] company of two pet dogs.

Nov 15 1974 to Feb 15th 1975 (cont.) -

both large, not seen before, both shortly leaving quickly and furtively as though behaviorly influenced by coyote. The above incident Feb 18th with Charles Comfort. Later same morning I returned towards dome to retrieve keys - and on way back, small light (as seen in same spot nearly two years ago) coyote, now a bit moth-eaten was sitting at "entrance" bay to chap, W-side, and when I was 400' away arose and walked into chap - confirming Den possibility.

February 22nd 1975 _____ On Ridge 8:30

Weather:- isibility to Mt. St. Helena - beautiful, sunny.

- Suncups -- blooming 8 days -
- Dodecatheon clevelandii - 1 solitary bloom quite S.W. of
serp. on gopher mound base. Some
petals recurved, some not.
- Kite - One heard and seen this morning near round
encl. flew N. then E. and about to oak
near hermit's pit.

Oct 16th 1976

To Searsville levee with 1st sec of Human Bio #103 class -

Weather:- moderately clear but hazy

- Long-billed Dowitcher - up to 30 now feeding for about 3 weeks
(earlier only about 9 present) along so. shore of retreating water
- Red Headed Duck - walking about W. shore of "island" - so end of lake. A not common sight.
- Gadwalls - prob. 20 on so. end of lake.
- Widgeons - 8 or 10 on lake.
- Mallards - 12 or so on lake Ring-necks common
- Coots - "many" -
- Ruddy Ducks - few usual
- Pied-billed Grebes - few "
- Bittern -----1 so end of lake - now drying
- Canvas-backs --6 " " " "
- Pintails ---- 4 " " " "

Dec. 14th 1976 -

- Double Crested Cormorants - 4 on lake - middle - as last year -

Dec. 21st 1976 - 7:30 A.M. Searsville Lake, alone

Weather:- hazy -

Aspect:- Lake very low because of prolonged drought - down ca 10'.

Swimming as a float out of inlet as I approached above

- Gadwalls - S.E. side and big inlet. - 12 - 20.
- Ring-necks - all in inlet - ca 20 to 30
- Coots - more abundant than ever - possibly hundreds - in and out of water. There is now a whole exposed shore.
- Widgeons - about 8 in inlet
- Pied Billed Grebes - 6 in inlet
- Mallards - 6 outside inlet.
- Hooded Mergansers - The second pair ever .
These in middle of lake in great plumage and swimming together

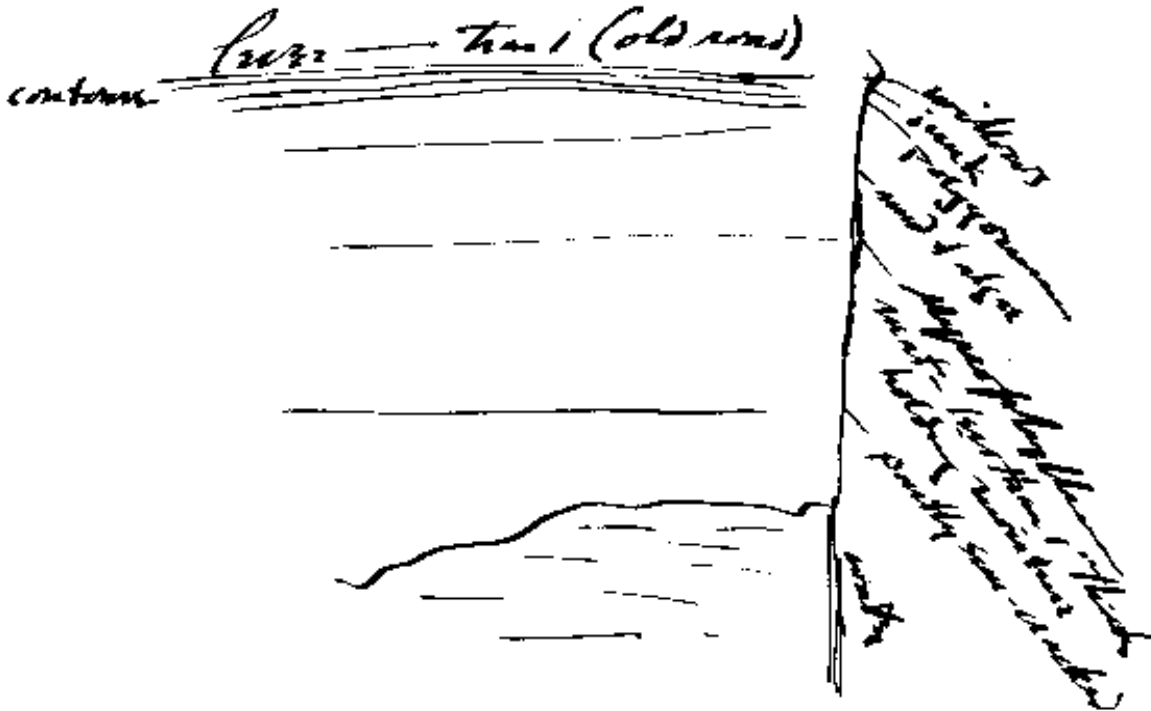
March 5th 1977

To Searsville 7:25 A.M. - 8:25 - left

Weather:- Very clear, sunny 28° at 7:25 - 36° 8:25

Fewer ducks on lake. Inlet about as before

- Green-winged Teal - 5 or 6 - so. border of lake in mud shore wading and swimming.
- Cormorant - only 1 - mid lake - flew to dam area
- Killdeers - no count - prob. 10. but increasingly noisy.
- Long-billed Dowitcher - only 1 seen - quite in contrast to past months
- Coots - numerous as usual.
- Pied-billed Grebes - sev. scattered on lake
- Ruddy Ducks - few as compared to last week.
- Least Sandpipers - 7 S. end of lake.
- X - Pipit - 2 in wide swath of flat mud between parrot-feather and water. Killdeers nearby sending out alarm notes. Pipits in some suggestion of courtship
- Flickers - 3 flushed from Myriophyllum near levee
- Mussel shells - 2-4 per sq. foot, south entrance to big inlet in water and on exposed mud shore
- 2" snail shells - also abundant, but more widespread and more evenly distributed



[See possible transcription on next page.]

