

Greenhouse Plot #3 - 2005	last updated 6/11/08 dwi									
	5/21/05	5/22/05	5/24/05	5/26/05	5/28/05	5/30/05	6/1/05	6/3/05	6/5/05	6/7/05
<i>Mertensia fusiformis</i>						1	3	7	12	19
<i>Viola praemorsa</i>	90% bare					1	1	3	3	4
<i>Taraxacum officinale</i>		snow gone							1	1
<i>Androsace septentrionalis</i>										
<i>Carex</i>										
<i>Thalictrum fendleri</i>										
<i>Potentilla pulcherrima X hippiana</i>										
<i>Bromelica (Melica) spectabilis</i>										
<i>Lupinus sp. (smaller flowers than argenteus, darker color)</i>										
<i>Poa pratensis</i>										
<i>Elymus (Agropyron) trachycaulus - wild rye</i>										
<i>Trisetum spicatum - lots of short awns; west side</i>										
<i>Bromopsis pumpelliana</i> (hairy spikelets)										
<i>Achnatherum (Stipa) lettermanii - needlegrass (long awns)</i>										
<i>Erigeron speciosus</i>										
<i>Achillea millefolium</i>										
<i>Ligularia (Senecio) bigelovii</i>										
<i>Heliomeris (Viguiera) multiflora</i>										
<i>Polygonum douglasii</i>										
Total Flowers	0	0	0	0	0	1	3	7	13	20

Total flowers without grasses	0	0	0	0	0	1	3	7	13	20
# species flowering	0	0	0	0	0	1	1	1	2	2
# species flowering without grass	0	0	0	0	0	1	1	1	2	2

Notes: Krehe and Kathy Ritter made counts until 1 June; *Frasera* plant on W side has 11 leaves; no gopher dumps from winter, but sti

This 2x2-m plot is located in the meadow between the East River and County Road 317, about 50 m north of the RMBL south property

		without grasses
Total number of species flowering =	19	13
Maximum # of flowers on one day =	133	97
Maximum # of species in flower =	6	5
Maximum H' = .		

Greenhouse plot #3

Point #	Plot name	Corner (com)	Altitude (feet)	Altitude (meters)	Latitude	Longitude
124	Greenhouse	Southeast	9410.662	2868.37	38.955915	106.98877
125	Greenhouse	Southwest	9410.199	2868.23	38.955914	106.98888
126	Greenhouse	Northwest	9410.631	2868.36	38.955932	106.98888
127	Greenhouse	Northeast	9411.011	2868.48	38.955933	106.98877

frost		6/9/05	6/11/05	6/13/05	6/15/05	6/17/05	6/19/05	6/21/05	6/23/05	6/25/05	6/27/05	6/29/05	7/1/05	7/3/05
		19	16	13	14	13	9	3						
		6	6	6	6	6	4	1						
		7	22	24	19	18	1							
		5	11	12	6	9	1							
					4	5	3	5	2	2		1	1	
					3	2	3	4	2	2		1	1	
					1	2	2	2	4	5	2		3	1
					1	1	1	1	1	2	1		2	1
						male					males done	1		
						female		1	2	2	1	2	7	
						both						1		5
						male								
						female		1	2	2	9	12	23	32

26	38	37	38	38	15	12	10	11	12	17	34	38
2	2	2	4	4	4	5	4	4	3	3	4	3
2	2	2	4	4	4	5	4	4	3	5	4	3

ill lots of disturbance from last year (about 20%); Emily Morris did counts on 21 and 23 August, and Rebecca Hewitt remaining counts

/ line. GPS coordinates below. See metadata file at www.rnbl.org for Inouye phenology project for additional details

7/6/05 7/8/05 7/10/05 7/12/05 7/14/05 7/17/05 7/19/05 7/21/05 7/23/05 7/25/05 7/27/05 7/29/05 7/31/05

2
1

1
43

1	1												
42	4	3	4										
4	10	17	26	31	15	32	21	6	10	7		3	
4	9	15	20	22	12	20	15	5	7	5		2	
	14	14	2										
			3	10	36	45	76	55	17	22		9	
			1	3	7	7	12	10	8	6		5	
				14	25	33	18	17	11	7			
					1	1	7						
					1	1	2						
					4		total of 4 stalks in plot						
					3								
					1	7			10				
							11	7	5	10			
							3	4	2	2			
								5	5	11		35	
								1	1	2		2	
												2	

46 47 27 35 31 55 82 118 133 90 58 57 49

46	47	13	21	29	41	51	77	97	66	32	40	49
2	2	3	3	3	3	6	5	5	5	6	5	4
2	2	2	2	2	2	2	2	2	3	3	3	4

Patty and Emily did counts through 8/15
 8/2/05 8/5/05 8/7/05 8/9/05 8/11/05 8/13/05 8/15/05 8/17/05 8/19/05 8/21/05 Emily did counts 8/23-25
 8/23/05 8/25/05 8/27/05

3% fresh gopher dump

2 rain

2

assume total of 14 stalks in plot

22 6
 5 2

total of 32 stalks in plot
 total of 7 stalks in plot

total of 1*2+2+10 stalks in plot
 total of 1*2+2*2+10 stalks in plot

33	39	31	31	37	30	23	23	15	1	1			
2	2	3	2	2	2	2	2	1	1	1			
4	3	3	4	4	4	4	5	4	3	3	3		3
	1	1	1	1	1								
					1	5	6	7	8	12	18		19
									7	8	8		10
							1			1	1		
							1			1	1		
59	49	37	36	42	36	32	35	26	12	17	22		22

59	49	37	36	42	36	32	35	26	12	17	22	22
3	4	4	3	3	4	3	4	3	3	4	3	2
3	4	4	3	3	4	3	4	3	3	4	3	2

8/29/05 8/31/05 9/4/05 9/6/05 9/8/05 9/10/05 9/12/05 9/14/05 9/16/05 9/18/05 9/20/05 9/22/05 9/24/05 9/26/05

3 3 2 2 2 2 2 2 2 2 2

14 11 9 8 1
9 6 4 4 1

total of 3 stalks in plot

17 14 11 10 3 2 2 2 2 2 0 0 0 0

17	14	11	10	3	2	2	2	2	2	0	0	0	0
2	2	2	2	2	1	1	1	1	1	0	0	0	0
2	2	2	2	2	1	1	1	1	1	0	0	0	0

9/28/05	9/30/05	Length of flowering		maximum number of flowers	maximum number of stalks or plants
		23	<i>Mertensia fusiformis</i>	19	flowers 6 genets
		15	<i>Viola praemorsa</i>	24	flowers 12 genets
		17	<i>Taraxacum officinale</i>	5	capitula 4 genets
		22	<i>Androsace septentrionalis</i>	5	flowers 2 genets
		2	<i>Carex</i> male	1	inflorescences
		11	female	7	inflorescences
		5	both	5	inflorescences
		3	<i>Thalictrum fendleri</i> male	1	inflorescences
		22	female	43	inflorescences
		31	<i>Potentilla pulcherrima X hippiana</i>	32	flowers 22 clusters of flowers
		5	<i>Bromelica (Melica) spectabilis</i>	14	inflorescences
		23	<i>Lupinus sp. (smaller flowers than argenteus)</i>	76	flowers 12 inflorescences
			<i>Poa pratensis</i>		
		13		33	inflorescences
		5	<i>Elymus (Agropyron) trachycaulus</i> - wild rye		7 inflorescences
				2	clumps (genets)
		2	<i>Trisetum spicatum</i> - lots of short awns; west side		4 inflorescences
				3	clumps (genets)
			<i>Bromopsis pumpelliana</i> (hairy spikelets)	10	inflorescences
		9	<i>Achnatherum (Stipa) lettermanii</i> - needlegr.	11	inflorescences
		7			4 clumps (genets)
		30	<i>Erigeron speciosus</i>	39	capitula 3 clumps
		50	<i>Achillea millefolium</i>	5	inflorescences
		9	<i>Ligularia (Senecio) bigelovii</i>	1	capitula
		27	<i>Heliomeris (Viguiera) multiflora</i>	19	capitula 10 inflorescences
		9	<i>Polygonum douglasii</i>	1	flowers 1 genets

0	0
0	0
0	0