

Greenhouse Plot #1 - 2006	last updated 6/23/08 dwi					
Date	5/4/2006	5/6/2006	5/8/2006	5/10/2006	5/22/2006	5/24/2006
<i>Androsace septentrionalis</i>	9" snow	5% bare	85% bare	snow gone		1
						1

*Mertensia fusiformis*

*Viola praemorsa*

*Valeriana capitata*

*Fragaria virginiana*

*Draba aurea*

*Valeriana edulis*

*Lupinus prunophyllus*

*Linum lewisii*

*Potentilla pulcherrima* x *P. hippiana*

*Bromelica (Melica) spectabilis*

*Vicia americana*

*Helianthella quinquenervis*

*Poa pratensis*

*Elymus (Agropyron) trachycaulus* - slender wheatgrass

*Collomia linearis*

*Erigeron speciosus*

*Chenopodium album*

*Ceratochloa (Bromus) carinata*

*Polygonum douglasii*

*Artemisia dracuncululus*

*Heliomeris (Viguiera) multiflora*

*Tragopogon dubius*

*Pneumonanthus parryi*

outside plot, on way to Willow-Meadow Interface plot #2

*Agoseris glauca*

Total Flowers	0	0	0	0	0	1
Total flowers without grasses	0	0	0	0	0	1
# species flowering	0	0	0	0	0	1
# species flowering without grass	0	0	0	0	0	1

Notes: Krehe and Kathy Ritter did counts until 1 June; 5% gopher wire

This 2x2-m plot is located just above (i.e. north of) the old Copper Lake

permanent snow cover began about 13 November 2006, based on the snowmelt date based on temperature and light data from Hobo Pendant

Total number of species flowering =	24	without grass
Maximum # of flowers on one day =	141	
Maximum # of species in flower =	8	
Maximum H' =	.	

#### Greenhouse plot #1

Point #	Plot name	Corner (corner)	Altitude (feet)	Altitude (meters)	Latitude
112	Greenhouse	Northwest	9417.16	2870.35	38.956084
113	Greenhouse	Northeast	9417.541	2870.47	38.956077
114	Greenhouse	Southeast	9417.42	2870.43	38.956061
115	Greenhouse	Southwest	9417.178	2870.36	38.956067

5/26/2006	5/28/2006	5/30/2006	6/1/2006	6/3/2006	6/5/2006	6/7/2006	6/9/2006	6/11/2006
7	11	5	7	3	4	8	8	7
1	1	1	1	1	1	1	1	1
5	11	4	3	4				
2	2	2	2	2				
	1	1	slight frost damage to leaves?					
	1	1						
			1	1	1	1	1	1
					2	1	2	1
					1	1	1	1
								1
								1
			1 stalk eaten	top eaten off of a stalk around this date				

12	23	10	11	8	7	10	11	10
12	23	10	11	8	7	10	11	10
2	3	3	3	3	3	3	3	4
2	3	3	3	3	3	3	3	4

water dump; Patty Coffin did counts 6-12, 16-20 August; Elizabeth Ziegler did counts 14, 22-24 August and  
 the lake road, just uphill from the Ehrlich cabin. GPS coordinates below. See metadata file at [www.rnbl.org](http://www.rnbl.org)

Temperature and light data from Hobo Pendant data logger  
 Hobo Pendant data logger = 28 April 2007

20
141
8

Longitude
106.98831
106.98829
106.98829
106.98832

6/13/2006	6/15/2006	6/17/2006	6/19/2006	6/21/2006	6/23/2006	6/25/2006	6/27/2006	6/29/2006
8	7	8	4	5	6			6
1	1	1	1	1	1			1

last flower  
1

1	1	1	1	1	1	1		
1								
1								
3	6	4	5	2				
1	2	2	3	2				
2	4	4	4	4	6	6	3	3
	2	2	2	2	3	3	2	2
			1	2	1	1	1	
			1	2	1	1	1	
			1	1	1	4	8	3
			1	1	1	2	2	2
				2	1	1	4	6
				2	1	1	4	6

frosted

					2	2	1	1
						1	3	3
						1	1	1

2 aborted s

15	18	17	16	17	16	14	17	20
15	18	17	16	17	16	13	16	19
5	4	4	6	7	7	7	6	7
5	4	4	6	7	6	6	5	6

id from 28 August to end

for Inouye phenology project for additional details.

7/1/2006	7/3/2006	7/5/2006	7/7/2006	7/9/2006	7/11/2006	7/13/2006	7/15/2006	7/17/2006
2	3	4	3	2	1		1	1
1	1	1	1	1	1		1	1

2	2	3	3	3	1	1	1	1
1	1	2	2	2				

plants with 6,7,9 inflorescences all aborted, another with 4 aborted, maybe 3 OK  
 only one seed pod form

5	7	2	3	4	2	1		
2	2	2	2	2	1	1		
7	5	7	12	14	13	16	10	8
7	5	6	8	12	10	13	9	7

total of 3 stalks in plot

		1						
1		2	1					
1		1	1					

stalks on 1 plant, no stalks on 3 other plants

total of 20 stalks in plot

	1	2	6	11	2	1		
total of 12 stalks in plo		3	4		2			
		1	2		1			
				1		3	2	
				1		3	1	
				1	1	5	15	
				1	1	1	3	

total of 2 in

17	17	18	25	31	30	22	21	28
16	17	16	21	23	19	19	20	28
5	4	6	7	6	7	6	6	6
5	4	5	5	4	6	4	5	6



7/19/2006	7/21/2006	7/23/2006	7/25/2006	7/27/2006	7/29/2006	7/31/2006	8/2/2006	8/4/2006
1	1	1	1					
1	1	1	1					

1	1	1	1	1	1			
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ned

					1		1	raining
					1		1	
17	12	18	11	12	4		1	1
12	8	12	5	8	3		1	1

3

5

9	4	3	9	4	1		2	
3	3	1	3	2	1		1	
18	42	51	57	99	134	128	112	103
3	4	6	7	10	9	5	7	8
1								

florescences in plot

total of 2 inflorescences in plot

1		1	2	1	3
1		1	1	1	2
	1	1	1		

total of 2 inflorescences in plot

1  
1

bud eaten

50	61	80	81	120	141	131	116	105
47	61	75	81	120	141	131	116	105
7	6	7	8	7	5	2	4	3
6	6	7	8	7	5	2	4	3



57	65	58	19	22	30	28	34	32
57	65	58	19	22	30	28	34	32
2	4	4	4	5	6	6	4	5
2	4	4	4	5	6	6	4	5

8/26/2006 8/28/2006 8/30/2006 9/1/2006 9/3/2006 9/5/2006 9/7/2006 9/9/2006 9/11/2006

5            7            9            5            3            6            5            9            1  
                 1            2

4            4            3            4            2                       1            3            1  
1            4            3            3            2                       1            3            1

8  
5

raining            5            5            3            3            1  
                 1            1            1            1            1

17	11	12	9	5	6	6	12	2
17	11	12	9	5	6	6	12	2
3	2	2	2	2	1	2	2	2
3	2	2	2	2	1	2	2	2

9/14/2006 9/16/2006 9/18/2006 9/20/2006

Length of flowering

	second flowering	
63		<i>Androsace septentrion</i>
9		<i>Mertensia fusiformis</i>
3		<i>Viola praemorsa</i>
		<i>Valeriana capitata</i>
29		
9		<i>Fragaria virginiana</i>
11		<i>Draba aurea</i>
		<i>Valeriana edulis</i>
25		
9		<i>Lupinus prunophyllus</i>
25	29	<i>Linum lewisii</i>
45		<i>Potentilla pulcherrima</i> .
		<i>Bromelica (Melica) sp</i>
13		
13		<i>Vicia americana</i>
		<i>Helianthella quinquene</i>
		<i>Poa pratensis</i>
19		
7		<i>Elymus (Agropyron) tr</i>
63		<i>Collomia linearis</i>
41		<i>Erigeron speciosus</i>
9	17	<i>Chenopodium album</i>
		<i>Ceratochloa (Bromus)</i>
53		<i>Polygonum douglasii</i>
5		<i>Artemisia dracunculus</i>
23		<i>Heliomeris (Viguiera) r.</i>
3		<i>Tragopogon dubius</i>
23		<i>Pneumonante parryi</i> outside plot, on way to
3		<i>Agoseris glauca</i>

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



Maximum number

<i>alis</i>	11	flowers
		1 genets
	11	flowers
		2 genets
	1	flowers
		1 genets
	1	inflorescences
	2	flowers
		1 clusters of flowers
	6	flowers
		3 inflorescences
	6	inflorescences
		3 cluster of flowering plants (genet?)
	2	flowers
		2 inflorescences
	8	flowers
		2 inflorescences
<i>x P. hippiar</i>	18	flowers
		13 clusters of flowers
<i>ectabilis</i>		2 inflorescences
	3	flowers
		1 clusters of flowers
<i>arvis</i>		
	11	inflorescences
<i>achycaulus</i>	4	inflorescences
		2 cluster of flowering plants (genet?)
	14	flowers
		8 genets
	134	capitulae
		10 cluster of flowering plants (genet?)
	2	flowers
		1 genets
<i>carinata</i>		
	9	flowers
		7 genets
	1	inflorescences
<i>nultiflora</i>	14	capitulae
		7 inflorescences
	1	capitulae
		1 inflorescences
	9	flowers
<i>o Willow-Meadow Inter</i>		1 inflorescences
	1	capitulae