

Table 27. Average grazing, plant frequency, grazing frequency, and species relative grazing frequency (SRGF) for plant species in mountain goat (*Oreamnos americanus*) summer range of Olympic National Park.^a

Species	Average grazing (%)			Frequency (n)						SRGF			SRGF ratios	
	H	M	L	Plant			Grazing			H	M	L	H/L	M/L
				H	M	L	H	M	L					
	Selected species^b													
<i>Carex spectabilis</i> ^c	12.7	2.3	6.6	158	30	75	126	20	21	80	67	28	2.8	2.4
<i>Poa secunda</i> ^c	7.6	1.3	0.7	103	58	37	52	16	4	50	28	11	4.7	2.6
<i>Agoseris</i> spp. ^c	7.6	3.2	1.0	114	54	56	63	16	12	55	30	21	2.6	1.4
<i>Festuca idahoensis</i> ^c	6.8	2.8	3.8	15	52	35	13	17	10	87	33	29	3.0	1.1
<i>Hedysarum occidentale</i> ^c	6.1	2.8	0.1	47	18	13	19	5	1	40	28	8	5.3	3.6
<i>Valeriana sitchensis</i>	5.0	0.2	1.1	63	14	21	29	3	3	46	21	14	3.2	1.5
<i>Aster paucicapitatus</i> ^c	4.7	1.6	0.1	77	25	25	33	14	1	43	56	4	10.7	14.0
<i>Erigeron peregrinus</i> ^c	3.4	0.4	1.4	97	19	28	44	7	6	45	37	21	2.1	1.7
<i>Sitanion hystrix</i>	3.2	1.0		32	65	42	12	10		38	15			
<i>Luzula parviflora</i>	3.1	1.3	T	50	11	25	18	4	3	36	36	12	3.0	3.0
<i>Carex phaeocephala</i>	2.8	0.6	T	74	22	30	27	12	1	36	55	3	10.9	16.4
<i>Phacelia hastata</i>	2.3	1.5	0.9	73	66	29	30	15	4	41	23	14	3.0	1.6
<i>Carex rossii</i>	2.2	1.3	2.8	41	23	11	24	5	3	59	22	27	2.1	0.8
<i>Trisetum spicatum</i>	2.2	1.6		116	47	38	50	14		43	30			
<i>Luzula campestris</i>	2.1	0.1	1.2	104	26	43	39	7	4	38	27	9	4.0	2.9
<i>Erysimum arenicola</i> ^d	2.0	0.7		95	67	46	27	9		28	13			
<i>Hieracium albiflorum</i>	1.8	0.4	0.7	34	23	11	18	3	2	53	13	18	2.9	0.7
<i>Hieracium gracile</i> ^d	1.8	0.2		141	31	38	49	8		35	26			
<i>Phleum alpinum</i>	1.8	0.6	0.2	31	10	18	13	4	2	42	40	11	3.8	3.6
<i>Juncus parryi</i>	1.6	0.4	T	86	34	16	44	9	1	51	26	6	8.2	4.2
<i>Epilobium alpinum</i>	1.6	0.5	0.1	102	51	64	22	8	6	22	16	9	2.3	1.7
<i>Achillea millefolium</i>	1.3	0.6	T	56	108	74	19	16	1	34	15	1	25.1	11.0
<i>Phlox diffusa</i> ^d	1.2	2.2	T	201	135	88	44	21	2	22	16	2	9.6	6.8
<i>Deschampsia atropurpurea</i> ^d	0.9	T	0.9	37	14	23	15	1	3	41	7	13	3.1	0.5
<i>Campanula rotundifolia</i> ^c	0.9	T	0.1	13	14	20	5	2	2	38	14	10	3.8	1.4
<i>Epilobium angustifolium</i>	0.8	0.4		28	24	22		10	5		36	21		
<i>Artemisia ludoviciana</i>	0.7	0.1		11	51	14		4	6		36	12		
<i>Viola adunca</i>	0.7	T	T	44	49	32	10	3	1	23	6	3	7.3	2.0
<i>Cirsium edule</i> ^d	0.7	0.3	T	35	29	13	10	3	1	29	10	8	3.7	1.3
<i>Penstemon davidsonii</i>	0.5	1.5	T	59	39	21	14	9	1	24	23	5	5.0	4.8
<i>Douglasia laevigata</i>	0.3		0.2	105	29	43	13		2	12		5	2.7	
<i>Luetkea pectinata</i> ^d	0.2	0.5	T	139	27	38	25	8	1	18	30	3	6.8	11.3
<i>Veronica cusickii</i>	0.2	0.2	0.2	51	21	40	12	4	1	24	19	3	9.4	7.6
<i>Antennaria lanata</i> ^d	0.7	0.2		25	20	24	5	7		20	35			
<i>Arenaria capillaris</i>	0.4	0.1		66	25	24	10	1		15	4			
<i>Juniperus communis</i> ^d	0.1	0.3		55	31	31	8	4		15	13			
<i>Antennaria microphylla</i> ^d	T	T		74	25	37	9	3		12	12			
<i>Phacelia sericea</i>	0.2	2.2		19	59	26	2	15		11	25			
<i>Penstemon procerus</i>	0.2	0.7		21	30	13	2	7		10	23			
<i>Festuca ovina</i>	0.2	0.7		39	18	20	3	7		8	39			
<i>Sedum divergens</i>	0.2	0.2		110	42	28	8	3		7	7			
<i>Cryptogamma crispa</i>	0.2	0.2		60	21	11	3	2		5	10			
<i>Cassiope mertensiana</i>	T	T		27	15	11	1	3		4	20			
	Possibly selected species^c													
<i>Silene parryi</i> ^c	7.1	5.1	2.9	98	57	36	64	26	13	65	46	36	1.8	1.3
<i>Poa cusickii</i>	3.7	1.5	0.9	107	38	42	46	17	10	43	45	24	1.8	1.9
<i>Pachistima myrsinites</i>	2.7	4.3	0.1	42	45	15	23	14	5	55	31	33	1.6	0.9
<i>Bromus sitchensis</i> ^c	4.0	2.1	1.1	35	34	18	22	12	7	63	35	39	1.6	0.9
<i>Polygonum bistortoides</i> ^c	13.9	1.3	10.7	161	22	64	118	9	31	73	41	48	1.5	0.8
<i>Lupinus latifolius</i>	4.3	1.6	1.3	172	20	42	43	6	7	25	30	17	1.5	1.8
<i>Anemone occidentalis</i>	0.3	1.6	1.7	22	13	14	4	3	2	18	23	14	1.3	1.6
<i>Lomatium martindalei</i>	1.7	1.5	0.3	152	92	57	40	30	12	26	33	21	1.3	1.5
	Species with a relatively high value of SRGF in low goat density areas													
<i>Vaccinium membranaceum</i>	12.0	5.0	7.9	76	15	10	50	13	7	66	87	70	0.9	1.2
<i>Artemisia norvegica</i>	0.7	0.9	1.6	22	10	17	4	1	4	18	10	24	0.8	0.4
<i>Castilleja miniata</i>	0.4	2.3	2.3	41	32	27	5	15	10	12	47	37	0.3	1.3
<i>Ranunculus eschscholtzii</i>	1.9		0.4	23	7	14	6		4	26		29	0.9	
<i>Potentilla fruticosa</i>		0.6	T	1	35	26		5	4		14	15	0.9	
<i>Gentiana calycosa</i>	4.3		4.2	65	1	10	23		4	35		40	0.9	

^aH = high goat density areas (>3 goats/km²); M = medium goat density areas (1–3 goats/km²); L = low goat density areas (<1 goat/km²). The following avoided species listed by Pfitsch and Bliss (1985) did not occur in enough plots to be rated here: *Lathyrus nevadensis*, *Orthocarpus imbricatus*, *Hydrophyllum fendleri*, *Polygonum douglasii*, *Vicia americana*, *Delphinium glareosum*, *Arabis* spp., *Cassiope mertensiana*, *Arenaria rubella*.

^bSpecies with 10 or more occurrences in high, medium, and low goat density areas and a species relative grazing frequency at least ×2 higher in high- or medium- compared to low-density areas. These species were categorized as selected by goats on a parkwide basis.

^cSpecies listed as preferred by goats on Klahhane Ridge by Pfitsch and Bliss (1985).

^dSpecies listed as avoided by goats on Klahhane Ridge by Pfitsch and Bliss (1985).

^eSpecies with an SRGF ratio 1:1.9—these species may be selected by goats but are also grazed by other herbivores.