Oikos

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Appendix 1

Table S1. Model comparison for the effects of species, snowmelt date, treatment, and year on leaf morphometry parameters: a) number of leaves, b) leaf length by Akaike's information criterion (AIC), Akaike weights (ω_i), and evidence ratios (E). Factors: treatment (Treat): removal and control; snowmelt date (Snow): Julian day 153, 160, 167, and 174; species (Spec): *Alchemilla pentaphyllea, Cardamine alpina, Ligusticum mutellina, Poa alpina, Polygonum viviparum* and *Veronica alpina*; and year (2006 and 2007). Leaf parameters (l*)* = $l_i - l_{initial}$, where l_i is the measured value of leaf number or leaf length in 2006 and 2007, respectively, $l_{initial}$ is the initial number of leaves or leaf length at the onset of the experiment in 2005. The model with the lowest AIC and the highest probability to be the best model is in bold, additional models with ΔAIC ≤ 2 in italics. For number of leaves: n = 788, for leaf length: n = 680 (without *Veronica alpina*). Dead plants were omitted. Corresponding figure: Fig. S1.

Model	DF	AIC	ω_i	E
(a) Nr. of leaves				
Intercept	5	4172	<0.001	<0.001
Spec	10	*4110*	*0.240*	*0.741*
Spec + Treat	11	**4109**	**0.324**	**1**
Spec + Treat + Year	12	*4111*	*0.132*	*0.407*
Spec + Snow	13	4115	0.020	0.061
Spec + Snow + Treat	14	4114	0.028	0.086
Spec + Snow + Treat + Year	15	4116	0.011	0.033
Spec × Treat + Year	17	*4110*	*0.217*	*0.67*
Spec + Snow × Treat	17	4114	0.021	0.064
Spec + Snow × Treat + Year	18	4116	0.008	0.026
Spec × Snow + Treat + Year	30	4132	<0.001	<0.001
Spec × Snow × Treat + Year	53	4151	<0.001	<0.001
(b) Leaf length				
Intercept	5	4479	<0.001	<0.001
Spec	9	4446	<0.001	<0.001
Spec + Treat	10	4436	0.021	0.039
Spec + Treat + Year	11	**4429**	**0.531**	**1**
Spec + Snow	12	4451	<0.001	<0.001
Spec + Snow + Treat	13	4441	0.002	0.003
Spec + Snow + Treat + Year	14	4434	0.046	0.086
Spec × Treat + Year	15	*4430*	*0.393*	*0.741*
Spec + Snow × Treat	16	4445	<0.001	<0.001
Spec + Snow × Treat + Year	17	4438	0.007	0.014
Spec × Snow + Treat + Year	26	4445	<0.001	<0.001
Spec × Snow × Treat + Year	45	4464	<0.001	<0.001

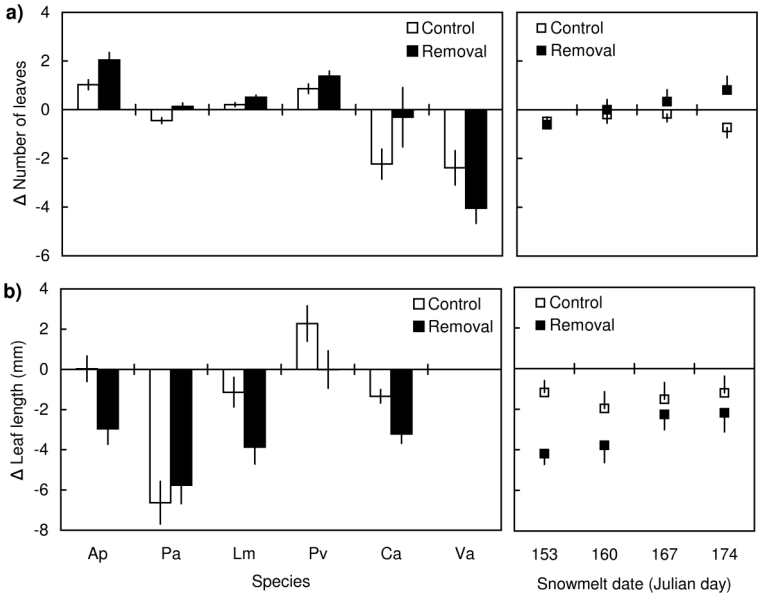

Figure S1. Mean changes in leaf number (a) and leaf length (b) ± 1 SE by treatment for the six study species (left panel) and the four snowmelt dates (right panel). Change in leaf parameters (l) = $l_i - l_{initial}$, where l_i is the measured value in 2006 or 2007 respectively, $l_{initial}$ is the initial value just before the onset of the experiment in 2005. Dead plants were excluded. For number of leaves: n = 788, for leaf length: n = 680 (without *Veronica alpina*). Leaf length for *Veronica alpina* was not ascertained. Figures correspond to Table S1. Dominant species: Ap = *Alchemilla pentaphyllea*; indifferent species: Pa = *Poa alpina;* grassland species: Lm = *Ligusticum mutellina*, Pv = *Polygonum viviparum*; subordinate snowbed species: Ca = *Cardamine alpina*, Va = *Veronica alpina*.