

Table S1. Plot level richness (α -diversity) as a rarefaction estimate E(s) for similar sample size in each plot for invertebrate families (sample size 10 for spiders and 38 for Hemiptera) and number of vascular plant species, invertebrate abundance (mean number per sweep sample), vegetation cover (mean frequency per frame), and height (mean per frame) results, as well as ANOVA results for treatment effect (DF = 3, 21*, different capital letters indicate statistical significance between treatments at the $p < 0.05$ level according to Tukey post hoc test and lower case letters $p < 0.10$).

Variable	Mean (SD)				F	p
	No moose	Low density	Intermediate	High density		
Richness						
Spiders	4.21 (0.56) ^A	4.19 (0.69) ^{AB}	4.04 (0.50) ^B	3.44 (0.74) ^B	3.64	0.029
Herb hemiptera	5.62 (0.69)	5.26 (1.08)	5.34 (0.90)	5.12 (0.72)	0.82	0.496
Vasc plants	9.13 (4.19)	10.13 (5.89)	10.75 (5.85)	8.88 (3.83)	1.42	0.265
Abundance						
Diptera	6.05 (2.57) ^A	6.68 (3.61) ^A	5.18 (1.94) ^{AB}	4.05 (2.68) ^B	4.29	0.017
Hymenoptera	3.33 (1.94) ^A	2.40 (1.95) ^{AB}	2.10 (1.52) ^{AB}	1.60 (0.87) ^B	3.74	0.027
Psocoptera	0.73 (1.46)	0.15 (0.21)	0.38 (0.52)	0.13 (0.21)	1.61	0.216
Flying insects	10.1 (4.20) ^A	9.23 (5.37) ^{AB}	7.65 (3.09) ^{AB}	5.78 (3.07) ^B	4.49	0.014
Lepid. larvae	1.83 (0.92)	1.48 (0.94)	1.63 (1.18)	1.33 (0.81)	1.02	0.403
Coleoptera all	2.40 (1.27) ^A	1.75 (0.86) ^{AB}	1.83 (1.57) ^{AB}	1.18 (0.86) ^B	2.74	0.069
Cantharidae	0.65 (0.62) ^A	0.30 (0.21) ^{AB}	0.10 (0.15) ^{BC}	0.00 (0.00) ^C	10.99	0.0002
Araneae all						
Non web spiders	8.30 (3.00) ^A	7.58 (3.23) ^{AB}	6.78 (3.44) ^{AB}	5.60 (3.70) ^B	3.27	0.042
Thomisidae	3.55 (1.55)	3.25 (1.76)	2.90 (1.66)	2.63 (2.68)	1.53	0.235
Philodromidae	1.80 (0.94)	1.75 (1.36)	1.45 (1.15)	1.95 (2.70)	1.12	0.365
Salticidae	0.20 (0.21)	0.40 (0.47)	0.18 (0.25)	0.13 (0.15)	2.13	0.127
Web spiders	1.30 (0.77) ^A	0.93 (0.50) ^{AB}	0.98 (0.58) ^{AB}	0.53 (0.41) ^B	3.49	0.034
Theridiidae	4.75 (2.31) ^A	4.33 (2.32) ^{AB}	3.88 (2.06) ^{AB}	2.98 (2.18) ^B	4.29	0.016
Araneidae	0.58 (0.29) ^{AB}	0.85 (0.94) ^A	0.58 (0.31) ^{AB}	0.43 (0.74) ^B	3.08	0.050
Tetragnathidae	0.15 (0.21)	0.30 (0.34)	0.23 (0.38)	0.23 (0.38)	1.28	0.307
Linyphiidae	0.18 (0.20) ^a	0.08 (0.15) ^{ab}	0.03 (0.07) ^b	0.03 (0.07) ^b	2.91	0.058
Linyphiidae	3.70 (1.97) ^A	3.05 (1.36) ^{AB}	3.03 (1.50) ^{AB}	2.28 (1.22) ^B	3.48	0.034
Herbiv hemiptera						
Homoptera	28.7 (15.5)	30.6 (19.4)	31.2 (21.9)	28.8 (19.1)	0.23	0.876
Cercopidae	16.2 (10.3)	19.7 (16.4)	17.1 (8.29)	18.2 (11.4)	0.29	0.833
Delphagidae	1.48 (2.58)	1.65 (2.40)	2.28 (3.29)	1.23 (1.58)	0.23	0.871
Cicadellidae	2.98 (5.07)	2.73 (4.81)	1.28 (2.05)	2.00 (2.74)	1.27	0.310
Psyllidea	9.43 (4.99)	13.1 (12.0)	10.8 (5.87)	13.3 (7.85)	1.74	0.189
Aphidodea	1.08 (1.46)	1.00 (1.63)	1.33 (2.09)	0.63 (1.00)	1.25	0.317
Herb. Heteroptera	1.23 (0.27)	1.18 (2.29)	1.38 (1.96)	1.03 (1.66)	1.44	0.259
Lygaeidae	12.5 (16.6)	11.0 (16.4)	14.2 (22.8)	10.6 (17.8)	1.97	0.150
<i>Lygus</i>	0.08 (0.27)	0.05 (0.22)	0.33 (0.89)	0.13 (0.33)	0.26	0.856
<i>Orthotylus</i>	0.45 (0.99) ^A	0.83 (1.28) ^B	0.68 (1.64) ^A	0.45 (1.20) ^A	5.86	0.005
Miridae others	2.03 (3.24)	2.10 (4.07)	2.73 (4.37)	2.08 (4.17)	1.25	0.315
Miridae others	0.50 (0.72)	0.23 (0.48)	0.43 (1.06)	0.40 (0.74)	1.74	0.189

Vegetation abundance						
<i>Vaccinium myrtillus</i>	2.44 (1.45)	2.44 (1.12)	2.69 (0.88)	2.90 (1.19)	0.61	0.613
<i>V. vitis-idae</i>	3.44 (1.77)	3.40 (1.63)	3.38 (1.36)	3.38 (1.45)	0.02	0.997
<i>Calluna vulgaris</i>	0.56 (1.00)	0.83 (1.38)	0.77 (1.14)	0.71 (1.24)	0.63	0.604
Grasses	3.48 (2.16)	3.67 (2.27)	3.60 (2.09)	3.54 (2.00)	0.66	0.584
Forbs	2.06 (1.92)	1.98 (2.05)	1.54 (1.61)	1.71 (1.72)	1.54	0.235
Ferns	1.13 (1.78)	0.54 (0.89)	0.73 (1.13)	0.83 (1.43)	2.21	0.117
Mosses	3.19 (1.56)	3.06 (1.51)	2.92 (0.98)	2.69 (1.10)	0.64	0.798
Lichens	1.50 (1.84)	1.38 (1.84)	1.29 (1.85)	1.31 (1.97)	0.39	0.761
Vegetation height						
<i>Vaccinium myrtillus</i>	10.6 (1.97)	10.7 (3.46)	10.5 (5.00)	9.71 (2.76)	0.33	0.802
<i>V. vitis-idae</i> ²	11.1 (4.04) ^a	7.92 (1.96) ^{ab}	8.87 (1.92) ^{ab}	8.25 (1.54) ^b	3	0.059
<i>Calluna vulgaris</i> ¹	28.8 (2.89) ^A	28.7 (4.67) ^A	26.4 (4.16) ^A	19.7 (4.68) ^B	12.8	0.005
Grass ³	26.9 (9.17)	26.2 (7.20)	26.4 (9.69)	28.4 (16.3)	0.52	0.674
Forbs ⁴	9.45 (3.25)	10.9 (4.06)	10.7 (2.47)	8.18 (2.39)	0.56	0.651
Ferns ⁵	18.3 (5.89)	15.3 (7.81)	20.2 (4.62)	13.6 (5.53)	0.45	0.731
Mosses	3.56 (3.02)	3.41 (2.40)	3.20 (1.56)	2.40 (1.14)	0.62	0.612
Lichens ⁶	2.18 (0.82)	1.73 (0.80)	1.75 (0.95)	1.89 (1.54)	0.37	0.774
Max height	27.3 (11.2)	26.6 (8.67)	27.7 (11.9)	27.6 (15.8)	0.09	0.967
Decid. litter (g m ⁻²)						
All sites	15.7 (17.3)	14.7 (18.4)	10.3 (12.4)	7.61 (15.1)	5.82	0.005
Without Åtmyrb.	23.2 (26.6)	16.6 (17.9)	16.4 (20.7)	8.9 (14.7)	5.02	0.011

* ¹ error DF = 6; ² error DF = 20; ³ error DF = 16; ⁴ error DF = 14; ⁵ error DF = 5; ⁶ error DF = 11.

Table S2. Linear regression results of relationships between key variables using the treatment means of the pooled data.

Explanatory	Dependent	adj. r^2	$F_{1,2}$	p
Decid. litt.*	Fly. ins. abu	0.982	163.1	0.006
Decid. litt.	Fly. ins. abu	0.781	11.67	0.076
Decid. litt.*	Spider abu	0.936	44.89	0.022
Decid. litt.	Spider abu	0.884	23.97	0.039
Decid. litt.*	Hemip. abu	-0.499	0.001	0.979
Decid. litt.	Hemip. abu	-0.500	0.001	0.982
Decid. litt.*	Veget. height	-0.430	0.097	0.785
Decid. litt.	Veget. height	0.116	1.393	0.359
Decid. litt.*	Veget. rich.	-0.491	0.013	0.921
Decid. litt.	Veget. rich.	-0.490	0.014	0.917
Decid. litt.*	Hemip. rich	-0.493	0.009	0.932
Decid. litt.	Hemip. rich	-0.136	0.641	0.507
Decid. litt.*	Spider rich.	0.771	11.09	0.080
Decid. litt.	Spider rich.	0.765	10.77	0.082
Fly. ins. abu.	Spider abu	0.991	321.4	0.003
Fly. ins. abu.	Spider rich	0.791	12.38	0.072
Spider abu.	Spider rich	0.832	15.85	0.058

* Data from Åtmyrberget omitted for litter mean calculations (see text).