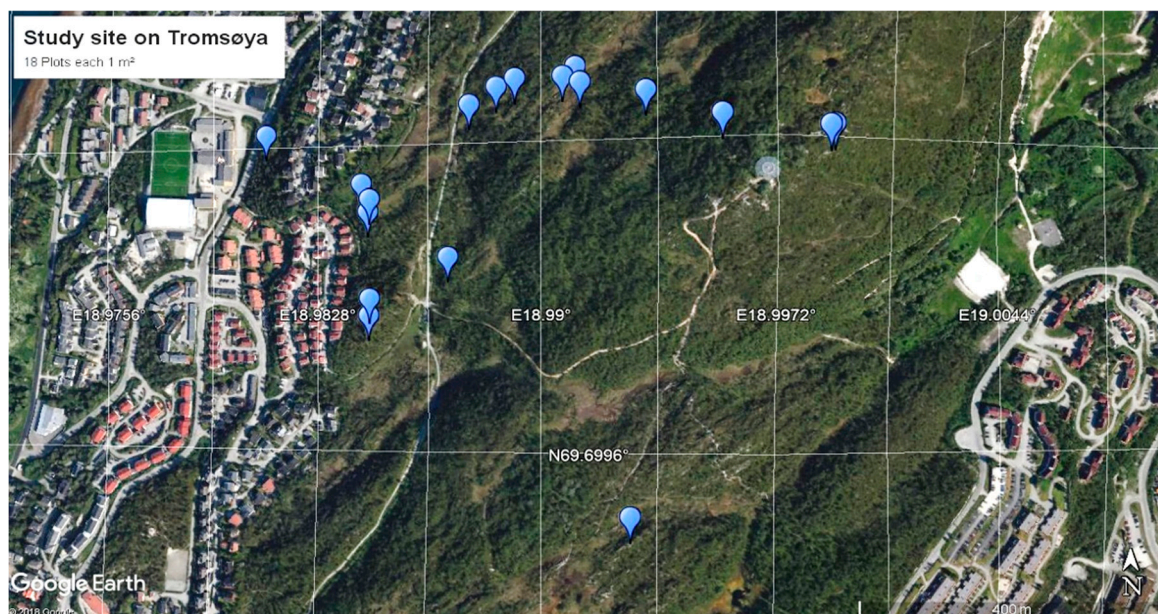*Supplementary*

Monitoring Winter Stress Vulnerability of High-Latitude Understory Vegetation Using Intraspecific Trait Variability and Remote Sensing Approaches
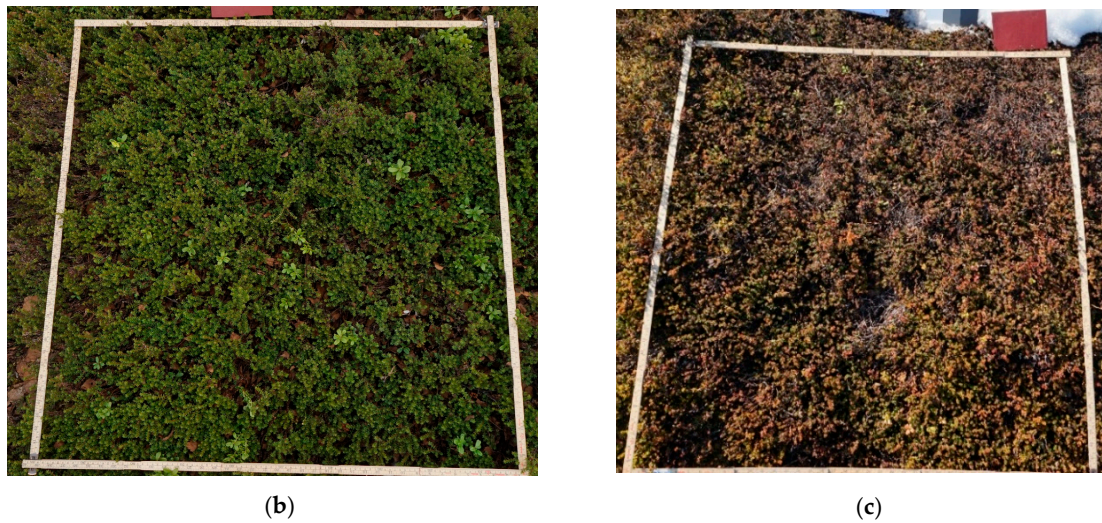

Figure S1. Study site of the 18 plots in the north of Tromsøya (Norway). Exact coordinates are given in Table S1.


(**a**)

Figure S2. *Cont.*

(**b**)   (**c**)

Figure S2. Exemplary plots of the study. (**a**) shows one of satellite upscaling areas. The photo was taken on the day of the upscaling experiment. Note: the snow patch on the left, which made plot selection difficult. The leafless trees show that this is from early spring prior to budbreak. (**b**) RGB image of a healthy plot (1 m²) of *E. nigrum*. (**c**) RGB image of a stressed plot of *E. nigrum.*

Figure S3. Illustration of the working process for the different species. After measuring at least eight times with the chlorophyll meter (Chl, Flav, NBI), middle parts are hole-punched and cut and stored in sealed, numbered glasses to determine moisture content and SLA.
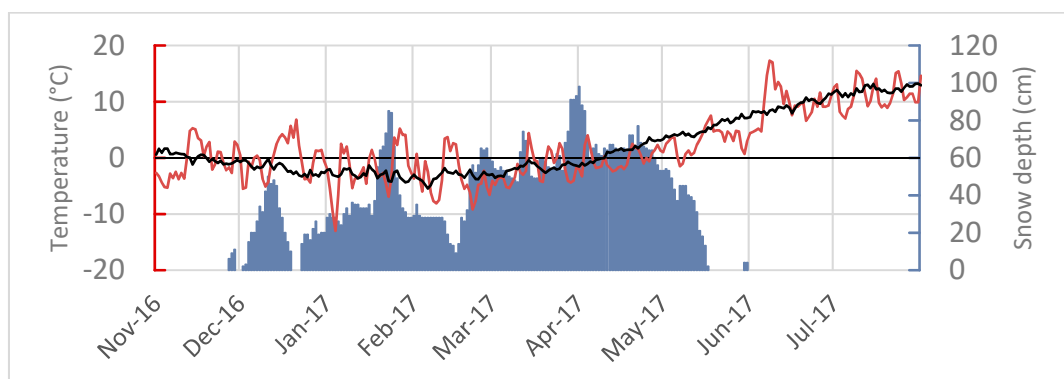
Figure S4. Weather statistics for Tromsø from November 2016 to July 2017. The red line shows the mean value of daily temperature. The black line shows the average temperature from 1989-2018. Blue bars indicate the snow depth. Snow depth and long-time temperature data are from the Tromsø weather station (SN90450) located about 5.6 km south of the study area, while daily mean temperature is from the Stakkevollan weather station (SN90495) located about 900 m south of the main cluster of field plots.

Table S1. Plot descriptions, including coordinates, stress estimate, plant height, soil depth, litter, slope, and vegetation assessment.

Plot No.	Dominant Species	GPS Coordinates (Lon/Lat)	Stress Estimate -Bare Eye- First week –Last week		Median height of Dominant Species [+ range] in cm	Soil depth Median [range]	%Litter	Cardinal Direction, Slope Inclination	Species Present in % (ground cover)
1	*Vaccinium vitis-idaea*	N 69.70306 E 018.98103°	8.5%	0%	19 [15–23]	12 [9–15 cm]	45%	SE, 15°	Ground layer (gl): *H. splendens* <5 % Dwarf layer (dw): *V. myrtillus* 1 %* *V. vitis-idaea* 60% *Gymnocarpium dryopteris* <5 %** *Cornus suecica* 10 %**
2	*Empetrum nigrum*	N 69.70245° E 018.98426°	<5%	1%	17 [15–19]	>20	20%	SW, 25°	gl: not present dw: *V. vitis-idaea* 5 % *V. myrtillus* 1%* *E. nigrum* 85 %
3	*Empetrum nigrum*	N 69.70227° E 018.98452°	7%	1%	13 [10–15]	>20	17.5%	WSW, 22°	*Pleurozium schreberi* 1% *H. splendens* 1 % *V. vitis-idaea* 5 % *V. myrtillus* 1%* *E. nigrum* 85 % *C. suecica* 5 %**
4	*Empetrum nigrum* & *Hylocomium splendens*	N 69.70212° E 018.98447°	35%	10%	12 [10–15] & 4.5 [4–7]	20	20%	W, 28°	*P. schreberi* 45 % *H. splendens* 20 % *Peltigera* sp. 1 % *V. vitis-idaea* <5 % *V. myrtillus* 1%* *E. nigrum* 40 %
5	*Hylocomium splendens*	N 69.70090° E 018.98445°	20%	10%	5 [4–6]	20	7.5%	NNE, 2°	grass litter 5 %* *H. splendens* 90 % *V. vitis-idaea* <5 % *V. myrtillus* < 1%* *Pyrola minor* < 1 % *C. suecica* 15 %** *G. dryopteris* 5 %**
6	*Hylocomium splendens*	N 69.70110° E 018.98449°	40%	5%	6.5 [4–10]	12 [8–20]	12. 5%	NNW, 13°	*H. splendens* 90 % *V. vitis-idaea* <5 % *V. myrtillus* 1%* *E. nigrum* 5 % *Lycopodium annotinum* <1 % *C. suecica* 15 %** *V. myrtillus* <5 %**
7	*Empetrum nigrum*	N 69.70159° E 018.98702°	<5%	5%	13.5 [9–16]	20	10%	WSW, 21°	*P. schreberi* < 1 % *H. splendens*. 5 % *V. vitis-idaea* <5 % *V. myrtillus* 1%* *E. nigrum* 90 %

Table S1. *Cont.*

8	*Empetrum nigrum*	N 69.70336° E 018.98772°	55%	15%	9.5 [7–11 cm]	10 [7–15 cm]	10%	SW, 21°	**P. schreberi 10 %** **H. splendens 5 %** ***Arctous alpinae < 1 %*** ***Cladonia* sp. <1 %** *V. vitis-idaea <5 %* *V. myrtillus 1%** *E. nigrum 90 %*
9	*Empetrum nigrum*	N 69.70376° E 018.99106°	80%	20%	6.5 [3–9]	10 [5–20]	15%	WNW, 15°	*P. schreberi 5 %* *H. splendens <5 %* *Dicranum spp. <5 %* *Polytrichum spp. 1 %* *Cladonia spp. 5 %* *Rubus chamaemorus <5 %*** *E. nigrum 65 %*
10	*Empetrum nigrum*	N 69.7058° E 018.99121°	35%	12%	8.5 [7–10]	10 [5–20]	10%	SSW, 27°	*P. schreberi 5 %* *H. splendens 10 %* *Cladonia spp. <5 %* *Andromeda polifolia <1 %* *A. alpinae < 5 %** *V. myrtillus <5 %** *E. nigrum 80 %*
11	*Empetrum nigrum &* *Hylocomium splendens*	N 69.70346° E 018.99323°	25%	45% (cut)	8.5 [5–14] & 4 [3–6]	7.5 [5–15]	17.5%	WNW, 16°	*Dicranum spp. 1 %* *H. splendens. 70 %* *Linaceae <5 %* *A. alpinae 5 %** *V. vitis-idaea 15 %* *E. nigrum 40 %*
12	*Hylocomium splendens*	N 69.70316° E 018.99550°	80%	30%	5.5 [3–7]	4.5 [3–6]	<5%	SW, 32°	*P. schreberi 35 %* *H. splendens 45 %* *Dicranum spp. <5 %* *Polytrichum spp. <5 %* *Cladonia spp. <5 %* *V. vitis-idaea 20 %* *Trientalis europaea 25 %***
13	*Empetrum nigrum*	N 69.70303° E 018.99885°	90 – 95%	30%	6 [4-8]	20	12.5%	SW, 6°	*P. schreberi 20 %* *A. alpinae 1 %** *V. vitis-idaea <5 %* *V. myrtillus 1 %** *E. nigrum 90 %*
14	*Empetrum nigrum*	N 69.70302° E 018.99873°	90%	30%	7 [5-12]	20	10%	SSE, 23°	*Cladonia spp. <1 %* *Dicranum spp. <1 %* *P. schreberi 1 %* *Calluna vulgaris < 5 %* *V. vitis-idaea <5 %* *V. myrtillus 1 %** *E. nigrum 90 %*

Table S1. *Cont.*

15	*Empetrum nigrum &* *Hylocomium splendens*	N 69.70355° E 018.98859°	45%	15%	12 [8–14 cm] & 4.5 [4–6 cm]	4 [3–5 cm]	15%	W, 18°	**H. splendens 65 %** **Dicranum spp. <1 %** **Peltigera sp. 1 %** **A. alpinae 1%*** *Vaccinium vitis-idaea <5 %* *V. myrtillus 1 %** *E. nigrum 45 %*
16	*Vaccinium vitis-idaea*	N 69.69860° E 018.99276°	55%	40%	6 [4–8]	6 [5–7]	25%	S, 10°	*A. alpinea <1%** *H. splendens 15 %* *Racomitrium lanuginosum 10 %* *V. vitis-idaea 60 %* *V. myrtillus 1 %** *E. nigrum <5 %* *V. myrtillus 15 %*** *A. alpinea 10%***
17	*Empetrum nigrum &* *Hylocomium splendens*	N 69.70364° E 018.98918°	35%	40% (cut)	9 [7–11] & 3 [2–5]	10 [6–15]	20%	W, 18°	*A. alpinae 5%** *H. splendens 65 %* *Cladonia spp. <1 %* *V. vitis-idaea <5 %* *V. myrtillus* <1 % *E. nigrum 55 %*
18	*Empetrum nigrum &* *Hylocomium splendens*	N 69.70365° E 018.99067°	100%	35%	5 [4–7] & 3.5 [3–5]	9.5 [7–13]	10%	NNW, 30°	*A. alpinea 1%** *Andromeda polifolia 1 %* *H. splendens 60 %* *Peltigera* (lichen) 1 % *Cladonia spp. 10 %* *V. vitis-idaea <5 %* *V. myrtillus 5 %** *E. nigrum 40 %*

* Deciduous plant; recognized on DOY 130 by the stem or last year's leaves.

** Deciduous plants greening up from DOY 172.

Table S2. Coordinates of the waypoints for satellite referencing. Waypoint coordinates are different from plot coordinates.

Latitude °N	Longitude °E
69.70155	18.99287
69.70138	18.99220
69.70113	18.99212
69.70111	18.99301
69.70139	18.99338
69.70193	18.99586
69.70164	18.99623
69.70170	18.99757
69.70212	18.99696
69.65089	18.90440
69.65097	18.90495
69.65072	18.90494
69.65070	18.90422
69.65083	18.90459

Table S3. Plot-level relationships between different greenness indices and chlorophyll content for different calibration methods. Wb = white balance, 3-step = 3-step reflectance calibration.

		Mapir NDVI	Channel G% (wb)	Channel G% (3-step)	BNDVI (wb)	GRVI (3-step)	GNDVI (wb)	Chlorophyll Content
Greenseeker NDVI	Correlation	0.951	0.749	0.725	0.779	0.689	0.440	0.634
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	35	87	87	88	88	88	38
Mapir NDVI	Correlation		0.880	0.889	0.775	0.859	−0.002	0.557
	Sig.		0.000	0.000	0.000	0.000	0.993	0.025
	N		35	35	35	35	35	16
Channel G% (white balance)	Correlation			0.972	0.730	0.909	0.454	0.376
	Sig.			0.000	0.000	0.000	0.000	0.020
	N			87	87	87	87	38
Channel G% (3-step)	Correlation				0.746	0.954	0.477	0.374
	Sig.				0.000	0.000	0.000	0.021
	N				87	87	87	38
BNDVI (white balance)	Correlation					0.641	0.547	0.433
	Sig.					0.000	0.000	0.007
	N					88	88	38
GRVI (3-step)	Correlation						0.338	0.387
	Sig.						0.001	0.016
	N						88	38
GNDVI (white balance)	Correlation							0.226
	Sig.							0.172
	N							38

Table S4. Equations corresponding to the linear regressions in Figures 1, 2 and 4.

Figure, Panel	Equation
1, a	y = 0.28 + 0.60x RMSE = 0.01937
1, b	y = 0.38 + 0.76x RMSE = 0.0571
1, c	y = 0.16 + 0.38x RMSE = 0.0314
1, d	y = 4.32 + 29.71x RMSE = 3.4572
1, e	y = 0.350 + 0.696x, RMSE = 0.02850
1, f	y = 0.284 + 0.766x, RMSE = 0.02669
2, a	y = −14.31 + 36.89x RMSE = 3.2404
2, b	y = 28.54 - 34.05x RMSE = 3.1102
4, a	y= 74.66/(1 + exp(−80.79(−229.73 × x))^(1/11.01))
4, b	y = 1/(0.019 + (62.051 × (x^20.470)))

Table S5. Correlation table for plots dominated by *E. nigrum*. Correlations are computed by Pearson's correlation, while significance is two-tailed.

		Greenseeker NDVI	BNDVI	Channel G%	GRVI	GNDVI	Mapir NDVI	Plant Height	Stress Level	Soil Depth	SLA	NBI	Flav	Litter	Moisture	Chl
Greenseeker NDVI	Correlation	1	0.849**	0.774**	0.719**	0.489**	0.936**	0.851**	−0.837**	0.575**	0.554*	0.637*	−0.282	0.520*	0.512	0.558*
	Sig.		0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.040	0.014	0.328	0.039	0.061	0.038
	N	40	40	39	40	40	15	24	16	40	14	14	14	16	14	14
BNDVI	Correlation		1	0.831**	0.772**	0.569**	0.892**	0.782**	−0.841**	0.304	0.256	0.297	−0.066	0.218	0.410	0.328
	Sig.			0.000	0.000	0.000	0.000	0.000	0.000	0.057	0.377	0.303	0.822	0.417	0.146	0.252
	N		40	39	40	40	15	24	16	40	14	14	14	16	14	14
Channel G%	Correlation			1	0.918**	0.700**	0.875**	0.726**	−0.873**	0.292	0.252	0.216	−0.040	0.156	0.545*	0.232
	Sig.				0.000	0.000	0.000	0.000	0.000	0.071	0.385	0.458	0.891	0.578	0.044	0.424
	N			39	39	39	15	23	16	39	14	14	14	15	14	14
GRVI	Correlation				1	0.618**	0.827**	0.750**	−0.868**	0.355*	0.414	0.364	−0.192	0.326	0.612*	0.261
	Sig.					0.000	0.000	0.000	0.000	0.025	0.141	0.201	0.511	0.218	0.020	0.368
	N				40	40	15	24	16	40	14	14	14	16	14	14
GNDVI	Correlation					1	0.110	0.181	−0.475	0.030	−0.078	0.088	−0.032	0.060	0.233	0.052
	Sig.						0.696	0.398	0.063	0.854	0.791	0.764	0.913	0.825	0.422	0.859
	N					40	15	24	16	40	14	14	14	16	14	14
Mapir NDVI	Correlation						1	0.745*	−0.692	0.512	0.643	0.588	−0.292	c	0.671	0.455
	Sig.							0.034	0.057	0.051	0.168	0.219	0.575		0.145	0.364
	N						15	8	8	15	6	6	6	0	6	6
Plant height	Correlation							1	−0.744**	0.549**	0.691	0.469	−0.256	0.569*	0.685	0.226
	Sig.								0.001	0.005	0.058	0.242	0.541	0.021	0.061	0.591
	N							24	16	24	8	8	8	16	8	8
Stress level	Correlation								1	−0.297	−0.160	0.296	−0.670	−0.403	−0.483	−0.597
	Sig.									0.263	0.797	0.629	0.216	0.322	0.410	0.288
	N								16	16	5	5	5	8	5	5

Table S5. *Cont.*

										Soil depth	SLA	NBI	Flav	Litter	Moisture	Chl
Soil depth	Correlation									1	0.811**	0.737**	−0.669**	0.552*	0.521	0.234
	Sig.										0.000	0.003	0.009	0.027	0.056	0.421
	N									40	14	14	14	16	14	14
SLA	Correlation										1	0.816**	−0.589*	0.859	0.811**	0.493
	Sig.											0.000	0.027	0.062	0.000	0.074
	N										14	14	14	5	14	14
NBI	Correlation											1	−0.789**	0.738	0.574*	0.466
	Sig.												0.001	0.155	0.032	0.093
	N											14	14	5	14	14
Flav	Correlation												1	−0.393	−0.361	0.157
	Sig.													0.513	0.205	0.592
	N												14	5	14	14
Litter	Correlation													1	0.976**	0.396
	Sig.														0.004	0.510
	N													16	5	5
Moisture	Correlation														1	0.432
	Sig.															0.123
	N														14	14
Chl	Correlation															1
	Sig.															
	N															14

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed). c Cannot be computed, because at least one of the variables is constant.

Table S6. Correlation table for plots dominated by *Vaccinium vitis-idaea*. Correlations are computed by Pearson's correlation, while significance is two-tailed.

		Greenseeker NDVI	BNDVI	Channel G%	GRVI	GNDVI	Mapir NDVI	Plant Height	Stress Level	Soil Depth	SLA	NBI	Flav	Litter	Moisture	Chl
Greenseeker NDVI	Correlation	1	0.865**	0.746*	0.721*	−0.340	0.979*	0.520	−0.700	0.674*	0.146	0.121	0.902**	0.873	−0.285	0.709*
	Sig.		0.001	0.013	0.019	0.336	0.021	0.291	0.300	0.033	0.688	0.739	0.000	0.127	0.425	0.022
	N	10	10	10	10	10	4	6	4	10	10	10	10	4	10	10
BNDVI	Correlation		1	0.885**	0.850**	−0.316	0.973*	0.234	−0.573	0.361	−0.171	0.446	0.648*	0.820	−0.117	0.858**
	Sig.			0.001	0.002	0.373	0.027	0.655	0.427	0.305	0.636	0.197	0.043	0.180	0.747	0.001
	N		10	10	10	10	4	6	4	10	10	10	10	4	10	10
Channel G%	Correlation			1	0.938**	−0.663*	0.923	0.289	−0.705	0.424	−0.080	0.339	0.585	0.446	−0.064	0.751*
	Sig.				0.000	0.037	0.077	0.579	0.295	0.222	0.826	0.338	0.075	0.554	0.861	0.012
	N			10	10	10	4	6	4	10	10	10	10	4	10	10
GRVI	Correlation				1	−0.609	0.981*	0.548	−0.862	0.543	0.149	0.261	0.606	0.708	0.172	0.690*
	Sig.					0.062	0.019	0.260	0.138	0.104	0.682	0.467	0.063	0.292	0.634	0.027
	N				10	10	4	6	4	10	10	10	10	4	10	10
GNDVI	Correlation					1	−0.901	−0.411	0.819	−0.571	−0.276	0.140	−0.305	−0.129	0.128	−0.142
	Sig.						0.099	0.418	0.181	0.085	0.440	0.699	0.391	0.871	0.724	0.696
	N					10	4	6	4	10	10	10	10	4	10	10
Mapir NDVI	Correlation						1	1.000**	−1.000**	0.978*	0.965*	−0.235	0.931	.c	−0.927	0.503
	Sig.									0.022	0.035	0.765	0.069		0.073	0.497
	N						4	2	2	4	4	4	4	0	4	4
Plant height	Correlation							1	−0.899	0.975**	0.888*	−0.475	0.639	1.000**	0.096	−0.026
	Sig.								0.101	0.001	0.018	0.341	0.172	0.000	0.856	0.962
	N							6	4	6	6	6	6	4	6	6
Stress level	Correlation								1	−0.962*	−0.522	0.083	−0.671	−1.000**	0.605	−0.255
	Sig.									0.038	0.478	0.917	0.329		0.395	0.745
	N								4	4	4	4	4	2	4	4
Soil depth	Correlation									1	0.783**	−0.402	0.780**	1.000**	−0.008	0.152
	Sig.										0.007	0.250	0.008	0.000	0.983	0.674
	N									10	10	10	10	4	10	10

Table S6. *Cont.*

SLA	Correlation										1	−0.589	0.401	0.992**	0.395	−0.294
	Sig.											0.073	0.251	0.008	0.258	0.410
	N									10	10	10	4	10	10
NBI	Correlation											1	−0.226	−0.567	−0.079	0.763*
	Sig.												0.530	0.433	0.828	0.010
	N											10	10	4	10	10
Flav	Correlation												1	0.711	−0.084	0.450
	Sig.													0.289	0.817	0.192
	N												10	4	10	10
Litter	Correlation													1	0.075	0.819
	Sig.														0.925	0.181
	N													4	4	4
Moisture	Correlation														1	−0.135
	Sig.															0.711
	N														10	10
Chl	Correlation															1
	Sig.															
	N															10

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). c Cannot be computed, because at least one of the variables is constant.

Table S7. Correlation table for plots dominated by *Hylocomium splendens*. Correlations are computed by Pearson's correlation, while significance is two-tailed.

		Greenseeker NDVI	BNDVI	Channel G%	GRVI	GNDVI	Mapir NDVI	Plant Height	Stress Level	Soil Depth	SLA	NBI	Flav	Litter	Moisture	Chl
Greenseeker NDVI	Correlation	1	0.745**	0.775**	0.611**	0.587**	0.966**	0.191	−0.215	−0.292	−0.424	0.384	0.090	−0.843*	−0.377	0.465
	Sig.		0.000	0.000	0.003	0.005	0.000	0.553	0.579	0.199	0.130	0.175	0.758	0.035	0.184	0.094
	N	21	21	21	21	21	12	12	9	21	14	14	14	6	14	14
BNDVI	Correlation		1	0.550**	0.397	0.775**	0.797**	0.077	−0.232	−0.490*	−0.474	0.335	0.142	−0.375	−0.438	0.465
	Sig.			0.010	0.075	0.000	0.002	0.812	0.549	0.024	0.087	0.241	0.628	0.464	0.117	0.094
	N		21	21	21	21	12	12	9	21	14	14	14	6	14	14
Channel G%	Correlation			1	0.881**	0.500*	0.860**	0.056	−0.652	0.200	−0.377	0.710**	−0.299	−0.493	−0.535*	0.500
	Sig.				0.000	0.021	0.000	0.862	0.057	0.384	0.183	0.004	0.300	0.320	0.049	0.069
	N			21	21	21	12	12	9	21	14	14	14	6	14	14
GRVI	Correlation				1	0.213	0.749**	−0.095	−0.434	0.301	−0.153	0.645*	−0.469	−0.201	−0.456	0.350
	Sig.					0.355	0.005	0.770	0.243	0.184	0.602	0.013	0.091	0.703	0.102	0.220
	N				21	21	12	12	9	21	14	14	14	6	14	14
GNDVI	Correlation					1	0.670*	0.143	−0.362	−0.457*	−0.483	0.268	0.426	0.013	−0.348	0.531
	Sig.						0.017	0.658	0.339	0.037	0.080	0.354	0.129	0.981	0.223	0.051
	N					21	12	12	9	21	14	14	14	6	14	14
Mapir NDVI	Correlation						1	0.308	−0.863*	0.189	−0.696	0.815*	−0.218	.c	−0.647	0.860*
	Sig.							0.553	0.027	0.556	0.124	0.048	0.678		0.165	0.028
	N						12	6	6	12	6	6	6	0	6	6
Plant height	Correlation							1	−0.044	−0.337	0.162	−0.575	0.282	0.677	0.223	−0.349
	Sig.								0.910	0.284	0.702	0.136	0.498	0.139	0.596	0.396
	N							12	9	12	8	8	8	6	8	8
Stress level	Correlation								1	−0.489	0.204	−0.803	−0.069	−0.631	0.078	−0.788
	Sig.									0.182	0.742	0.102	0.913	0.565	0.901	0.114
	N								9	9	5	5	5	3	5	5
Soil depth	Correlation									1	0.084	0.512	−0.437	0.457	−0.131	0.204
	Sig.										0.776	0.061	0.118	0.362	0.656	0.485
	N									21	14	14	14	6	14	14

Table S7. *Cont.*

SLA	Correlation													1	−0.663**	−0.208	0.050	0.850**	−0.745**
	Sig.														0.010	0.476	0.937	0.000	0.002
	N												14	14	14	14	5	14	14
NBI	Correlation														1	−0.343	−0.015	−0.786**	0.795**
	Sig.															0.230	0.981	0.001	0.001
	N														14	14	5	14	14
Flav	Correlation															1	0.395	0.110	0.253
	Sig.																0.511	0.708	0.384
	N															14	5	14	14
Litter	Correlation																1	−0.020	0.195
	Sig.																	0.974	0.753
	N																6	5	5
Moisture	Correlation																	1	−0.669**
	Sig.																		0.009
	N																	14	14
Chl	Correlation																		1
	Sig.																		
	N																		14

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). c. Cannot be computed, because at least one of the variables is constant.

Table S8. Correlation table for mixed plots of *Empetrum nigrum* and *Hylocomium splendens*. Correlations are computed by Pearson's correlation, while significance is two-tailed.

		Greenseeker NDVI	BNDVI	Channel G%	GRVI	GNDVI	Mapir NDVI	Plant Height	Stress Level	Soil Depth	Litter
Greenseeker NDVI	Correlation	1	0.892**	0.755**	0.640**	0.532*	0.944	0.826*	−0.832*	0.621**	0.744*
	Sig.		0.000	0.000	0.006	0.028	0.056	0.011	0.020	0.008	0.034
	N	17	17	17	17	17	4	8	7	17	8
BNDVI	Correlation		1	0.727**	0.643**	0.592*	0.995**	0.859**	−0.751	0.542*	0.713*
	Sig.			0.001	0.005	0.012	0.005	0.006	0.052	0.025	0.047
	N		17	17	17	17	4	8	7	17	8
Channel G%	Correlation			1	0.837**	0.667**	0.995**	0.407	−0.610	0.633**	0.558
	Sig.				0.000	0.003	0.005	0.317	0.145	0.006	0.151
	N			17	17	17	4	8	7	17	8
GRVI	Correlation				1	0.740**	0.996**	0.379	−0.544	0.492*	0.082
	Sig.					0.001	0.004	0.355	0.207	0.045	0.847
	N				17	17	4	8	7	17	8
GNDVI	Correlation					1	0.540	−0.183	−0.438	0.347	0.232
	Sig.						0.460	0.665	0.326	0.173	0.581
	N					17	4	8	7	17	8
Mapir NDVI	Correlation						1	1.000**	−1.000**	0.995**	c
	Sig.									0.005	
	N						4	2	2	4	0
Plant Height	Correlation							1	−0.385	0.537	0.427
	Sig.								0.523	0.170	0.398
	N							8	5	8	6
Stress Level	Correlation								1	−0.361	−0.894*
	Sig.									0.427	0.041
	N								7	7	5
Soil Depth	Correlation									1	0.551
	Sig.										0.157
	N									17	8

Table S8. *Cont.*

											1
Litter	Correlation										1
	Sig.										
	N										8

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). c Cannot be computed, because at least one of the variables is constan