Table S1: Leaf trait means (standard error) for each species (*B. nana* (Betn), *S. pulchra* (Salp), *L. palustre* (Ledp), and *V. vitis-idaea* (Vacv)) and treatment combination (no cable (Ct), unheated cable (Ca), heated cable (W), no nutrient addition (NF), and nutrient addition (F)).

	CtNF	CaNF	WNF	CtF	CaF	WF
Leaf area (cm^2)						
Betn	0.95 (0.03)	0.94 (0.03)	1.04 (0.04)	1.01 (0.03)	1.13 (0.04)	1.10 (0.05)
Salp	3.31 (0.25)	3.36 (0.27)	2.93 (0.23)	4.31 (0.34)	3.39 (0.27)	5.00 (0.49)
Ledp	0.27 (0.01)	0.24 (0.01)	0.30 (0.02)	0.43 (0.02)	0.42 (0.02)	0.45 (0.02)
Vacv	0.39 (0.01)	0.38 (0.02)	0.41 (0.02)	0.57 (0.04)	0.65 (0.03)	0.66 (0.03)
SLA ($cm^2 \cdot g^{-1}$)						
Betn	132.0 (3.4)	132.5 (3.8)	135.4 (3.7)	157.4 (5.8)	163.8 (6.5)	154.4 (4.8)
Salp	121.1 (4.8)	121.6 (4.4)	124.7 (4.0)	123.2 (6.0)	123.6 (6.6)	129.6 (6.0)
Ledp	50.8 (1.7)	54.0 (2.0)	59.2 (1.8)	61.6 (2.2)	59.6 (2.7)	65.0 (1.5)
Vacv	57.9 (2.6)	59.4 (2.0)	61.2 (3.1)	78.9 (3.5)	78.6 (3.2)	83.9 (3.1)
LNC (%)						
Betn	24.3 (0.6)	23.7 (1.0)	24.6 (0.8)	32.4 (1.3)	34.6 (0.9)	31.6 (2.0)
Salp	18.0 (0.9)	15.3 (0.8)	16.5 (1.1)	22.7 (0.8)	21.4 (1.4)	22.9 (1.5)
Ledp	13.2 (0.3)	14.0 (0.5)	16.0 (1.5)	17.9 (0.7)	19.0 (0.8)	17.8 (0.6)
Vacv	7.3 (0.4)	7.7 (0.4)	8.4 (0.4)	9.9 (0.5)	11.0 (1.0)	12.1 (1.4)
LPC ($mg \cdot g^{-1}$)						
Betn	2.08 (0.13)	1.97 (0.16)	2.09 (0.15)	3.82 (0.32)	3.92 (0.27)	3.97 (0.38)
Salp	1.48 (0.07)	1.33 (0.13)	1.89 (0.30)	1.55 (0.18)	1.30 (0.14)	1.74 (0.19)
Ledp	0.88 (0.03)	1.03 (0.06)	1.16 (0.13)	1.26 (0.08)	1.27 (0.07)	1.42 (0.12)
Vacv	0.53 (0.03)	0.56 (0.03)	0.68 (0.07)	0.78 (0.06)	0.80 (0.10)	0.82 (0.06)
Leaf dry matter content ($g \cdot g^{-1}$)						
Betn	0.55 (0.02)	0.55 (0.02)	0.54 (0.03)	0.47 (0.03)	0.42 (0.02)	0.46 (0.02)
Salp	0.55 (0.03)	0.48 (0.02)	0.48 (0.01)	0.44 (0.06)	0.46 (0.12)	0.43 (0.11)
Ledp	0.55 (0.01)	0.54 (0.01)	0.52 (0.01)	0.49 (0.05)	0.48 (0.06)	0.47 (0.03)
Vacv	0.53 (0.03)	0.53 (0.01)	0.53 (0.01)	0.48 (0.07)	0.50 (0.03)	0.44 (0.06)
Leaf C:N						
Betn	20.6 (0.5)	21.7 (1.1)	20.5 (0.6)	15.9 (1.0)	14.4 (0.3)	17.0 (1.5)
Salp	27.0 (1.2)	32.2 (2.4)	27.8 (3.2)	21.6 (0.8)	23.2 (1.7)	23.2 (1.8)
Ledp	40.5 (1.0)	38.4 (1.5)	35.3 (1.7)	30.2 (1.0)	27.9 (1.3)	28.8 (1.2)
Vacv	70.3 (3.2)	67.6 (3.3)	62.0 (3.1)	53.2 (3.1)	50.0 (3.9)	46.1 (3.3)

Table S2: Plant traits of each plant functional type (PFT): deciduous (Dec) and evergreen (Eve). Treatment columns show the average and standard error of the plant traits on plots unfertilized (NFert) and fertilized (Fert). LMM (linear mixed-effect model) columns show the Wald test outputs for differences of fertilization effects with PFT (Fert × PFT). Significant effects are in bold (* P < 0.001, ** P < 0.01 and * P < 0.05).**

	Treatment		LMM
	Fertilization		Fert × PFT
	NFert	Fert	$F_{1,26}$
Leaf area (cm^2)			**16.6** ***
Dec	1.60 (0.10)	2.04 (0.15)	
Eve	0.33 (0.01)	0.53 (0.01)	
Specific leaf area ($cm^2 \cdot g^{-1}$)			1.0
Dec	130.3 (1.7)	148.5 (2.8)	
Eve	57.1 (0.9)	71.3 (1.3)	
Leaf nitrogen concentration (%)			**12.2** **
Dec	21.0 (0.6)	28.1 (0.8)	
Eve	11.1 (0.5)	14.6 (0.5)	
Leaf phosphorus concentration ($mg \cdot g^{-1}$)			**9.4** **
Dec	1.84 (0.07)	2.84 (0.17)	
Eve	0.81 (0.04)	1.07 (0.04)	
Leaf dry matter content ($g \cdot g^{-1}$)			1.0
Dec	0.53 (0.01)	0.45 (0.01)	
Eve	0.53 (0.00)	0.58 (0.01)	
Leaf carbon to nitrogen ratio			**10.2** **
Dec	24.4 (0.8)	18.9 (0.6)	
Eve	52.3 (1.8)	39.5 (1.5)	
Bark thickness (mm)			1.0
Dec	0.73 (0.03)	0.74 (0.03)	
Eve	0.16 (0.00)	0.15 (0.00)	
Xylem diameter (mm)			0.7
Dec	4.22 (0.15)	4.54 (0.15)	
Eve	1.84 (0.10)	1.84 (0.10)	
Stem-specific density ($g \cdot cm^{-3}$)			2.9
Dec	0.82 (0.02)	0.73 (0.02)	
Eve	0.78 (0.03)	0.76 (0.03)	
Stem water content (%)			**11.1** **
Dec	35.1 (1.4)	49.3 (2.1)	
Eve	35.9 (1.8)	38.1 (1.8)	
Height (cm)			0.1
Dec	14.1 (0.4)	19.8 (0.5)	
Eve	7.6 (0.3)	10.1 (0.4)	

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Table S3: Variation percentage explained by the two principal component axes (PC1, PC2) when the trait leaf nutrient content is included (with LNC) or excluded (without LNC) from the Principal Component Analysis for each species (*B. nana* (Betn), *S. pulchra* (Salp), *L. palustre* (Ledp) and *V. vitis-idaea* (Vacv)) and for all the species together.

	PC1 %variation explained		PC2 %variation explained		% explained by PC1 and PC2	
	With LNC	Without LNC	With LNC	Without LNC	With LNC	Without LNC
Betn	54 %	46 %	20 %	24 %	74 %	70 %
Salp	41 %	36 %	20 %	25 %	61 %	61 %
Ledp	65 %	61 %	17 %	20 %	82 %	81 %
Vacv	60 %	58 %	18 %	20 %	78 %	78 %
All species	64 %	58%	19 %	24%	83 %	82%

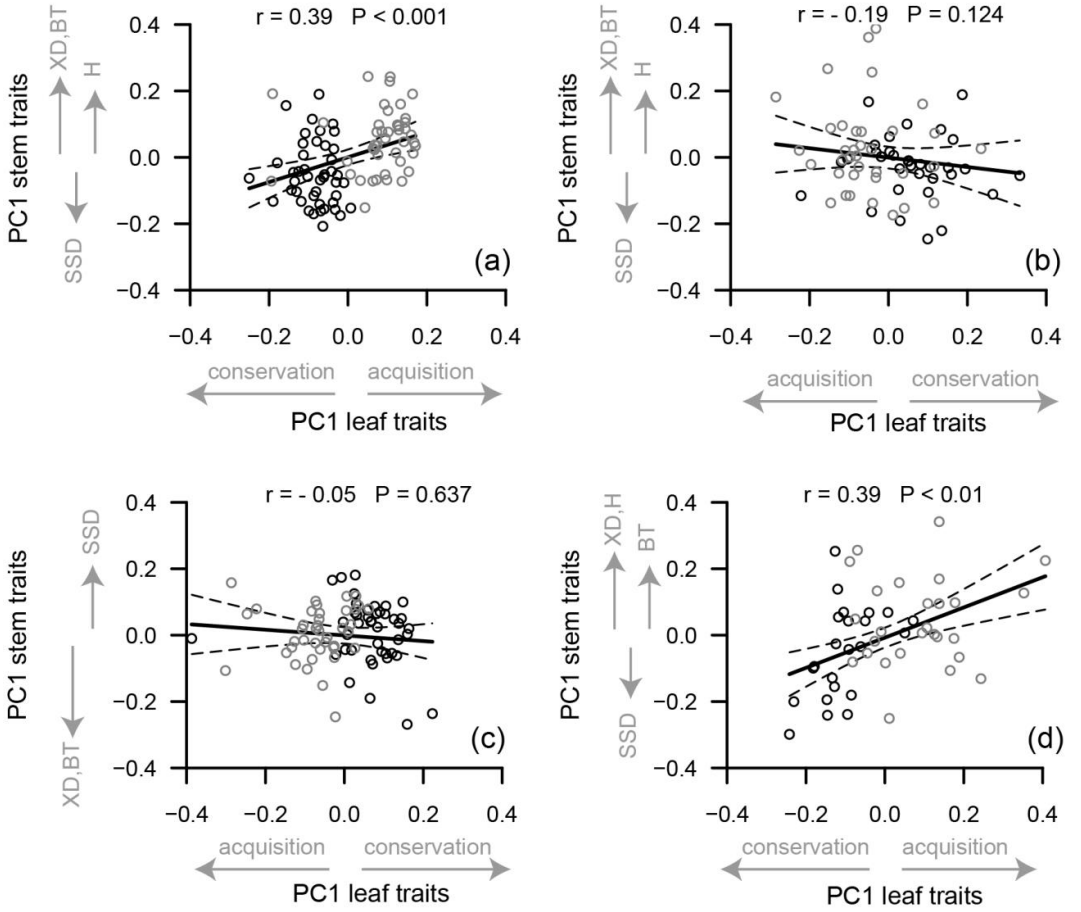

Figure S1: Relationship between the first axis (PC1) of the stem traits-plant height PCA and PC1 of the leaf traits PCA for *Betula nana* (a), *Salix pulchra* (b), *Ledum palustre* (c) *and Vaccinium vitis-idaea* (d). Points are trait values for individuals on unfertilized plots (black) and on fertilized plots (grey). Solid lines are values predicted by the linear mixed-effect model and dashed lines are the upper and lower limits of the predicted value confidence interval. Pearson's correlation coefficient (r) and p-value (P) are indicated on each panel. The main traits comprising PC1 are indicated by the grey arrows. The stem traits are plant height (H), xylem diameter (XD), bark thickness (BT), and stem-specific density (SSD). Leaf traits are grouped into acquisition traits (higher SLA, LNC and LPC) and conservation traits (higher LDMC and leaf C:N).