

S3 Table. Species turnover and intra-specific trait variability relative contribution (in %) on CWM and FD response to altitude. Three ANOVAs and Sum of squared (SS) decomposition for **A)** CWM_s (species turnover and intra-specific effects), CWM_f (species turnover effect) and differences between them (intra-specific trait variability effect) and **B)** FD_s (species turnover and intra-specific effects), FD_f (species turnover effect) and their differences (intra-specific trait variability effect); to establish the relative effect on CWM and FD response to altitude respectively of species turnover and intra-specific trait variability for each functional trait considered. Covariation effect consider the positive (positive covariation term) or negative (negative covariation term) correlation between species turnover and intra-specific effects. Significant values ($p < 0.05$) are marked in bold.

A) CWM

Functional trait	Turnover effect	Intra-specific effect	Covariance effects	Total effect
Individual size (cm ²)	3,1	0,0	-0,4	2,7
Height (mm)	3,9	5,2	-9,0	0,1
LT (μm)	13,3	16,3	-29,4	0,2
SLA (mm ² ·mg ⁻¹)	50,2	2,2	-20,9	31,5
LDMC (mg·g ⁻¹)	21,6	18,1	-39,5	0,2
LCC (mg·g ⁻¹)	7,8	2,9	9,5	20,2
δ ¹³ C (‰)	14,3	86,4	-70,3	30,4
LNC (mg·g ⁻¹)	3,2	0,0	0,8	4,0
δ ¹⁵ N (‰)	0,2	24,0	4,0	28,1

B) FD (Rao)

Functional trait	Turnover effect	Intra-specific effect	Covariation effect	Total effect
Individual size (cm ²)	5.9	3.6	-9.3	0.3
Height (mm)	6.0	9.6	-15.2	0.4
LT (μm)	25.5	2.1	14.7	42.2
SLA (mm ² ·mg ⁻¹)	65.1	1.1	17.1	83.4
LDMC (mg·g ⁻¹)	27.7	7.5	28.8	63.9
LCC (mg·g ⁻¹)	62.9	10.4	-51.1	22.1
δ ¹³ C (‰)	19.9	18.0	37.9	75.8
LNC (mg·g ⁻¹)	7.6	3.7	-10.6	0.7
δ ¹⁵ N (‰)	4.6	29.8	23.5	57.9