

Table S1. Relative cover of each species in each plot sampled along an elevational gradient in Central Italy (Mount Velino).

[illegible]

Table S1. Relative cover of each species in each plot sampled along an elevational gradient in Central Italy (Mount Velino).

	Belt 3											Belt 4														
Plot number	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Species																										
<i>Anthyllis montana</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.082	0.000	0.000	0.000	0.067	0.000	0.055	0.000	0.000	0.028	0.063	0.000	0.000	0.000
<i>Anthyllis vulneraria</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.077	0.002	0.067	0.000	0.055	0.055	0.119	0.113	0.000	0.000	0.071	0.141
<i>Avenula praetutiana</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.082	0.000	0.000	0.000	0.067	0.000	0.000	0.002	0.000	0.113	0.000	0.000	0.071	0.006
<i>Brachipodium genuense</i>	0.200	0.000	0.143	0.071	0.091	0.000	0.038	0.200	0.119	0.148	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bromus erectus</i>	0.050	0.000	0.036	0.285	0.091	0.066	0.002	0.200	0.030	0.037	0.495	0.000	0.082	0.164	0.308	0.000	0.267	0.000	0.055	0.055	0.030	0.000	0.000	0.000	0.000	0.000
<i>Carex humilis</i>	0.000	0.219	0.286	0.071	0.091	0.066	0.153	0.000	0.030	0.037	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Carex kitaibeliana</i>	0.000	0.000	0.000	0.000	0.000	0.266	0.000	0.000	0.000	0.000	0.495	0.610	0.003	0.000	0.000	0.554	0.000	0.163	0.222	0.221	0.373	0.225	0.250	0.000	0.286	0.000
<i>Carex macrolepis</i>	0.050	0.000	0.036	0.071	0.000	0.000	0.002	0.000	0.030	0.148	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cerastium tomentosum</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.077	0.002	0.067	0.007	0.002	0.055	0.030	0.001	0.000	0.019	0.071	0.000
<i>Cytisus spinosus</i>	0.050	0.110	0.036	0.285	0.000	0.000	0.153	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Festuca striata</i>	0.200	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Festuca violacea</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.055	0.002	0.119	0.352	0.000	0.000	0.071	0.565
<i>Globularia meridionalis</i>	0.000	0.342	0.036	0.003	0.091	0.066	0.153	0.000	0.521	0.001	0.000	0.195	0.003	0.000	0.000	0.177	0.000	0.000	0.222	0.055	0.030	0.113	0.063	0.000	0.000	0.000
<i>Helianthemum nummularium</i>	0.200	0.000	0.143	0.000	0.000	0.000	0.038	0.200	0.119	0.296	0.000	0.000	0.003	0.000	0.077	0.000	0.000	0.000	0.000	0.221	0.000	0.000	0.000	0.000	0.000	0.000
<i>Helianthemum oelandicum</i>	0.050	0.110	0.143	0.071	0.091	0.266	0.153	0.200	0.001	0.037	0.000	0.195	0.327	0.658	0.308	0.177	0.267	0.654	0.222	0.221	0.239	0.000	0.250	0.000	0.000	0.000
<i>Pedicularis elegans</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.007	0.000	0.044	0.000	0.000	0.000	0.055	0.030	0.000	0.063	0.000	0.000	0.000
<i>Potentilla apennina</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.019	0.286	0.000
<i>Potentilla crantzii</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.000	0.000	0.071	0.000
<i>Sesleria juncifolia</i>	0.000	0.219	0.143	0.071	0.091	0.266	0.307	0.002	0.001	0.148	0.005	0.000	0.327	0.164	0.000	0.044	0.067	0.163	0.055	0.000	0.030	0.000	0.063	0.481	0.071	0.141
<i>Sesleria nitida</i>	0.200	0.000	0.000	0.071	0.364	0.003	0.000	0.200	0.119	0.148	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Thymus praecox</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.082	0.000	0.077	0.000	0.067	0.007	0.055	0.002	0.001	0.028	0.000	0.481	0.000	0.141
<i>Valeriana montana</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.077	0.000	0.067	0.000	0.000	0.055	0.000	0.000	0.000	0.000	0.000	0.006

Table S2. Belt-specific values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) for plant species recorded along an elevational gradient in Central Italy (Mount Velino).

	H	SLA	SM
Belt 1			
<i>Anthyllis montana</i>	5.267	11.432	4.021
<i>Brachypodium rupestre</i>	29.615	4.838	1.740
<i>Bromus erectus</i>	32.000	10.674	3.679
<i>Carex humilis</i>	12.933	8.974	0.758
<i>Carex macrolepis</i>	25.600	10.838	1.870
<i>Cytisus spinosus</i>	13.460	14.290	5.659
<i>Festuca ovina</i>	10.833	6.048	0.812
<i>Globularia meridionalis</i>	3.660	8.624	0.311
<i>Helianthemum oelandicum</i>	8.730	12.009	0.745
<i>Sesleria juncifolia</i>	16.400	6.940	1.638
<i>Thymus striatus</i>	6.567	14.043	0.077
Belt 2			
<i>Anthyllis montana</i>	4.967	12.523	3.674
<i>Brachypodium genuense</i>	38.533	16.581	4.353
<i>Bromus erectus</i>	29.250	12.464	5.455
<i>Carex humilis</i>	14.533	9.513	0.758
<i>Cytisus spinosus</i>	12.600	11.738	8.308
<i>Globularia meridionalis</i>	3.430	10.519	0.210
<i>Helianthemum oelandicum</i>	7.000	10.962	1.067
<i>Polygala major</i>	9.267	13.937	3.436
<i>Sesleria juncifolia</i>	24.060	5.949	3.416
<i>Thymus striatus</i>	6.000	13.834	0.119
Belt 3			
<i>Brachypodium genuense</i>	34.133	16.265	3.720
<i>Bromus erectus</i>	18.467	8.960	2.864
<i>Carex humilis</i>	11.667	9.017	0.758
<i>Carex kitabeliana</i>	17.200	7.813	0.640
<i>Carex macrolepis</i>	29.867	9.511	2.674
<i>Cytisus spinosus</i>	13.333	10.085	9.488
<i>Festuca striata</i>	13.000	9.863	3.683
<i>Globularia meridionalis</i>	3.000	9.115	0.229
<i>Helianthemum nummularium</i>	23.200	12.264	1.559
<i>Helianthemum oelandicum</i>	11.260	8.720	1.015
<i>Sesleria juncifolia</i>	25.933	4.283	2.040
<i>Sesleria nitida</i>	28.200	7.840	1.860
Belt 4			
<i>Anthyllis montana</i>	5.467	8.948	2.575
<i>Anthyllis vulneraria</i>	5.000	8.861	2.610
<i>Avenula praetutiana</i>	4.800	5.349	1.447
<i>Bromus erectus</i>	25.200	13.546	4.232
<i>Carex kitabeliana</i>	13.600	8.478	1.085
<i>Cerastium tomentosum</i>	5.130	12.059	0.260
<i>Festuca violacea</i>	8.933	10.781	0.571
<i>Globularia meridionalis</i>	2.067	8.386	0.202
<i>Helianthemum nummularium</i>	15.067	14.065	1.374
<i>Helianthemum oelandicum</i>	7.533	10.022	0.894
<i>Pedicularis elegans</i>	3.800	9.451	0.867
<i>Potentilla apennina</i>	4.800	7.243	0.568
<i>Potentilla crantzii</i>	7.467	11.637	0.456
<i>Sesleria juncifolia</i>	19.000	4.756	2.858

<i>Sesleria nitida</i>	22.533	6.873	2.693
<i>Thymus praecox</i>	5.600	10.043	0.131
<i>Valeriana montana</i>	3.727	1.879	1.350

Table S3. Fixed values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) for plant species recorded along an elevational gradient in Central Italy (Mount Velino).

	H	SLA	SM
<i>Anthyllis montana</i>	5.233	10.968	3.423
<i>Anthyllis vulneraria</i>	5.000	8.861	2.610
<i>Avenula praetutiana</i>	4.800	5.349	1.447
<i>Brachypodium genuense</i>	36.333	16.423	4.036
<i>Brachypodium rupestre</i>	29.615	4.838	1.740
<i>Bromus erectus</i>	26.229	11.411	4.057
<i>Carex humilis</i>	13.044	9.168	0.758
<i>Carex kitaibeliana</i>	15.400	8.145	0.862
<i>Carex macrolepis</i>	27.733	10.175	2.272
<i>Cerastium tomentosum</i>	5.130	12.059	0.260
<i>Cytisus spinosus</i>	13.131	12.038	7.818
<i>Festuca ovina</i>	10.833	6.048	0.812
<i>Festuca striata</i>	13.000	9.863	3.683
<i>Festuca violacea</i>	8.933	10.781	0.571
<i>Globularia meridionalis</i>	3.039	9.161	0.238
<i>Helianthemum nummularium</i>	19.133	13.165	1.466
<i>Helianthemum oelandicum</i>	8.631	10.428	0.930
<i>Pedicularis elegans</i>	3.800	9.451	0.867
<i>Polygala major</i>	9.267	13.937	3.436
<i>Potentilla apenninica</i>	4.800	7.243	0.568
<i>Potentilla crantzii</i>	7.467	11.637	0.456
<i>Sesleria juncifolia</i>	21.348	5.482	2.488
<i>Sesleria nitida</i>	25.367	7.356	2.277
<i>Thymus praecox</i>	5.600	10.043	0.131
<i>Thymus striatus</i>	6.283	13.939	0.098
<i>Valeriana montana</i>	3.727	1.879	1.350

Table S4. Specific, fixed and intraspecific CWM values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) in each plot sampled along an elevational gradient in Central Italy (Mount Velino).

Plot number	Belt	H			SLA			SM		
		Specific CWM	Fixed CWM	Intraspecific CWM	Specific CWM	Fixed CWM	Intraspecific CWM	Specific CWM	Fixed CWM	Intraspecific CWM
1	1	10.765	9.594	1.171	9.616	9.683	-0.067	1.172	1.303	-0.131
2	1	28.119	25.061	3.058	10.375	10.375	0.000	3.428	4.009	-0.581
3	1	11.194	10.375	0.819	9.462	9.484	-0.022	1.132	1.271	-0.139
4	1	20.464	18.072	2.392	10.139	10.186	-0.047	2.228	2.523	-0.295
5	1	24.099	23.933	0.166	10.162	9.772	0.39	2.148	2.512	-0.364
6	1	13.964	15.740	-1.776	8.690	7.798	0.892	1.637	2.009	-0.372
7	1	9.705	9.594	0.111	10.328	9.931	0.397	0.738	0.847	-0.109
8	1	10.990	11.324	-0.334	9.863	9.441	0.422	0.946	1.164	-0.218
9	1	11.402	12.531	-1.129	9.226	8.414	0.812	1.262	1.663	-0.401
10	2	13.964	12.794	1.170	9.484	8.770	0.714	2.218	1.786	0.432
11	2	13.583	12.388	1.195	9.397	8.750	0.647	1.816	1.503	0.313
12	2	13.646	12.618	1.028	10.375	9.886	0.489	1.774	1.552	0.222
13	2	16.634	15.453	1.181	9.290	8.913	0.377	3.119	2.564	0.555
14	2	12.474	11.830	0.644	10.715	10.186	0.529	2.754	2.404	0.350
15	2	19.770	18.030	1.704	9.204	8.650	0.554	3.133	2.483	0.650
16	2	17.100	15.704	1.396	8.241	7.709	0.532	2.884	2.323	0.561
17	2	8.810	8.670	0.140	11.220	10.209	1.011	1.125	0.979	0.146
18	2	13.614	12.882	0.732	9.204	8.610	0.594	1.778	1.459	0.319
19	2	14.689	13.804	0.885	11.117	10.715	0.402	2.518	2.188	0.330

Continued

Table S4. Specific, fixed and intraspecific CWM values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) in each plot sampled along an elevational gradient in Central Italy (Mount Velino).

Plot number	Belt	H			SLA			SM		
		Specific CWM	Fixed CWM	Intraspecific CWM	Specific CWM	Fixed CWM	Intraspecific CWM	Specific CWM	Fixed CWM	Intraspecific CWM
20	3	23.335	22.542	0.793	11.117	11.561	-0.444	2.965	3.048	-0.083
21	3	11.967	10.965	1.002	8.091	8.810	-0.719	1.841	1.750	0.091
22	3	19.143	18.450	0.693	9.863	10.641	-0.778	1.950	2.004	-0.054
23	3	19.099	20.654	-1.555	9.419	10.914	-1.495	4.375	4.295	0.080
24	3	20.941	20.277	0.664	8.872	9.204	-0.332	1.977	2.301	-0.324
25	3	16.749	14.962	1.787	7.362	8.395	-1.033	1.245	1.479	-0.234
26	3	16.255	14.555	1.700	8.110	9.099	-0.989	2.600	2.477	0.123
27	3	23.067	23.121	-0.054	10.789	11.749	-0.960	2.203	2.553	-0.350
28	3	13.964	13.646	0.318	10.209	10.399	-0.190	1.271	1.374	-0.103
29	3	25.882	23.823	2.059	10.233	10.889	-0.656	2.158	2.286	-0.128
30	3	17.824	20.797	-2.973	8.375	9.750	-1.375	1.750	2.449	-0.699
31	4	10.162	11.668	-1.506	8.770	8.790	-0.020	0.875	0.753	0.122
32	4	12.190	13.428	-1.238	8.091	8.453	-0.362	1.936	1.884	0.052
33	4	12.274	13.552	-1.278	9.750	9.772	-0.022	1.762	1.694	0.068
34	4	16.482	18.155	-1.673	9.333	9.162	0.171	2.275	2.094	0.181
35	4	10.789	12.303	-1.514	8.551	8.630	-0.079	1.038	0.899	0.139
36	4	11.967	12.677	-0.710	9.750	9.462	0.288	2.113	2.109	0.004
37	4	10.375	11.776	-1.401	8.933	9.247	-0.314	1.236	1.161	0.075
38	4	8.995	10.023	-1.028	9.141	9.376	-0.235	1.202	1.186	0.016
39	4	10.520	12.162	-1.642	10.233	9.977	0.256	1.271	1.242	0.029
40	4	10.186	11.246	-1.060	9.333	9.290	0.043	1.247	1.159	0.088
41	4	8.072	8.570	-0.498	9.120	9.183	-0.063	1.014	0.991	0.023
42	4	8.375	9.290	-0.915	8.414	8.650	-0.236	1.042	1.028	0.014
43	4	12.023	13.152	-1.129	7.482	7.834	-0.352	1.452	1.276	0.176
44	4	8.851	9.528	-0.677	8.318	8.260	0.058	1.057	0.968	0.089
45	4	9.268	9.616	-0.348	9.484	9.572	-0.088	1.130	1.076	0.054

Table S5. Specific, fixed and intraspecific CWM values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) calculated on log-transformed data.

		H			SLA			SM		
Plot number	Belt	Specific CWM	Fixed CWM	Intraspecific CWM	Specific CWM	Fixed CWM	Intraspecific CWM	Specific CWM	Fixed CWM	Intraspecific CWM
1	1	0.885	0.834	0.052	0.976	0.982	-0.006	-0.167	-0.195	0.028
2	1	1.433	1.387	0.046	0.998	1.000	-0.002	0.504	0.560	-0.056
3	1	0.924	0.884	0.039	0.969	0.972	-0.003	-0.150	-0.168	0.018
4	1	1.243	1.206	0.037	1.000	1.002	-0.001	0.209	0.249	-0.039
5	1	1.342	1.340	0.002	0.994	0.977	0.017	0.269	0.333	-0.064
6	1	1.078	1.113	-0.036	0.921	0.869	0.052	0.112	0.190	-0.078
7	1	0.969	0.961	0.007	0.994	0.979	0.014	-0.335	-0.287	-0.048
8	1	1.003	1.007	-0.004	0.969	0.948	0.021	-0.289	-0.224	-0.065
9	1	0.973	0.980	-0.007	0.948	0.907	0.041	-0.054	-0.002	-0.053
10	2	1.005	0.973	0.032	0.958	0.922	0.036	0.027	-0.020	0.046
11	2	1.021	0.986	0.035	0.958	0.926	0.032	-0.027	-0.061	0.034
12	2	1.071	1.047	0.025	1.007	0.985	0.022	-0.005	-0.035	0.030
13	2	1.145	1.128	0.017	0.941	0.918	0.023	0.267	0.182	0.084
14	2	0.994	0.982	0.012	1.016	0.992	0.024	0.062	0.016	0.047
15	2	1.207	1.174	0.033	0.935	0.905	0.030	0.290	0.205	0.085
16	2	1.160	1.137	0.023	0.896	0.865	0.031	0.328	0.246	0.081
17	2	0.765	0.756	0.009	1.046	1.003	0.044	-0.281	-0.278	-0.003
18	2	1.056	1.052	0.004	0.950	0.921	0.029	0.119	0.065	0.054
19	2	1.008	0.987	0.021	1.021	0.999	0.022	-0.069	-0.118	0.049

Table S5. Specific, fixed and intraspecific CWM values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) calculated on log-transformed data.

Plot number	Belt	H			SLA			SM		
		Specific CWM	Fixed CWM	Intraspecific CWM	Specific CWM	Fixed CWM	Intraspecific CWM	Specific CWM	Fixed CWM	Intraspecific CWM
20	3	1.338	1.318	0.021	1.031	1.047	-0.016	0.413	0.430	-0.017
21	3	0.946	0.926	0.019	0.890	0.932	-0.043	-0.070	-0.059	-0.011
22	3	1.226	1.208	0.019	0.965	1.006	-0.041	0.163	0.172	-0.009
23	3	1.252	1.279	-0.027	0.960	1.026	-0.066	0.511	0.537	-0.026
24	3	1.248	1.234	0.014	0.929	0.947	-0.018	0.202	0.257	-0.055
25	3	1.175	1.123	0.052	0.849	0.910	-0.062	0.013	0.072	-0.059
26	3	1.120	1.081	0.038	0.877	0.936	-0.060	0.160	0.171	-0.011
27	3	1.334	1.320	0.013	1.017	1.055	-0.038	0.299	0.341	-0.042
28	3	0.916	0.912	0.004	0.998	1.005	-0.006	-0.170	-0.148	-0.023
29	3	1.399	1.357	0.042	0.978	1.011	-0.033	0.302	0.319	-0.017
30	3	1.251	1.302	-0.051	0.921	0.983	-0.062	0.131	0.271	-0.139
31	4	0.924	1.001	-0.077	0.942	0.942	0.000	-0.123	-0.167	0.044
32	4	1.012	1.049	-0.037	0.877	0.904	-0.027	0.160	0.154	0.006
33	4	1.026	1.076	-0.050	0.970	0.979	-0.009	0.142	0.140	0.002
34	4	1.135	1.174	-0.039	0.937	0.936	0.001	0.237	0.210	0.027
35	4	0.942	1.013	-0.071	0.928	0.932	-0.004	-0.073	-0.116	0.044
36	4	0.969	0.992	-0.022	0.946	0.941	0.005	0.161	0.165	-0.004
37	4	0.983	1.039	-0.056	0.937	0.955	-0.019	0.037	0.022	0.015
38	4	0.840	0.905	-0.065	0.953	0.966	-0.013	-0.115	-0.115	0.000
39	4	0.945	1.003	-0.058	0.980	0.971	0.008	0.016	0.007	0.009
40	4	0.957	0.998	-0.041	0.965	0.963	0.002	0.013	-0.020	0.033
41	4	0.848	0.878	-0.030	0.951	0.954	-0.003	-0.114	-0.125	0.011
42	4	0.855	0.896	-0.041	0.918	0.930	-0.012	-0.058	-0.070	0.012
43	4	1.001	1.026	-0.024	0.845	0.874	-0.030	-0.221	-0.250	0.029
44	4	0.889	0.908	-0.019	0.906	0.906	0.001	-0.070	-0.103	0.033
45	4	0.929	0.937	-0.007	0.960	0.969	-0.009	-0.137	-0.146	0.008

Table S6. Specific, fixed and intraspecific CM values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) in each plot sampled along an elevational gradient in Central Italy (Mount Velino).

Plot number	Belt	H			SLA			SM		
		Specific CM	Fixed CM	Intraspecific CM	Specific CM	Fixed CM	Intraspecific CM	Specific CM	Fixed CM	Intraspecific CM
1	1	14.725	13.851	0.874	9.938	9.629	0.309	1.722	2.056	-0.334
2	1	25.169	24.177	0.992	10.160	9.615	0.545	3.237	3.972	-0.735
3	1	13.073	12.817	0.255	10.200	9.709	0.491	1.710	2.150	-0.440
4	1	14.002	13.751	0.251	9.651	9.105	0.546	1.943	2.443	-0.500
5	1	16.407	16.445	-0.038	9.847	9.297	0.550	2.269	2.636	-0.367
6	1	14.292	14.062	0.231	10.203	9.715	0.488	2.070	2.394	-0.325
7	1	9.364	9.160	0.204	10.665	10.130	0.534	1.393	1.776	-0.382
8	1	13.073	12.817	0.255	10.200	9.709	0.491	1.710	2.150	-0.440
9	1	14.133	14.802	-0.668	9.279	8.519	0.760	1.808	2.329	-0.520
10	2	13.268	12.622	0.646	11.114	10.695	0.419	2.846	2.478	0.368
11	2	13.268	12.622	0.646	11.114	10.695	0.419	2.846	2.478	0.368
12	2	12.345	11.801	0.544	11.271	10.726	0.545	2.938	2.583	0.355
13	2	12.345	11.801	0.544	11.271	10.726	0.545	2.938	2.583	0.355
14	2	12.345	11.801	0.544	11.271	10.726	0.545	2.938	2.583	0.355
15	2	16.075	15.256	0.819	11.722	11.332	0.390	3.013	2.651	0.362
16	2	13.138	12.490	0.648	10.951	10.324	0.627	3.290	2.894	0.397
17	2	19.553	18.558	0.995	12.631	11.856	0.776	2.771	2.315	0.456
18	2	10.543	10.094	0.449	10.567	9.857	0.710	2.093	1.879	0.214
19	2	14.413	14.005	0.408	11.931	11.630	0.302	2.987	2.721	0.266

Continued

Table S6. Specific, fixed and intraspecific CM values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) in each plot sampled along an elevational gradient in Central Italy (Mount Velino).

Plot number	Belt	H			SLA			SM		
		Specific CM	Fixed CM	Intraspecific CM	Specific CM	Fixed CM	Intraspecific CM	Specific CM	Fixed CM	Intraspecific CM
20	3	21.433	21.195	0.238	10.439	11.357	-0.919	3.358	3.317	0.040
21	3	13.039	11.839	1.200	8.244	9.255	-1.011	2.706	2.446	0.259
22	3	18.984	18.736	0.249	9.802	10.828	-1.026	2.705	2.674	0.031
23	3	19.540	19.428	0.112	9.311	10.182	-0.872	2.739	2.764	-0.025
24	3	18.208	18.374	-0.166	9.258	9.912	-0.654	2.021	2.308	-0.287
25	3	16.532	16.151	0.381	7.964	8.736	-0.772	1.344	1.659	-0.315
26	3	18.984	18.736	0.249	9.802	10.828	-1.026	2.705	2.674	0.031
27	3	23.532	22.840	0.692	9.722	10.711	-0.989	2.176	2.542	-0.366
28	3	19.873	19.386	0.487	9.584	10.263	-0.679	2.040	2.220	-0.180
29	3	20.636	20.095	0.541	9.553	10.308	-0.755	1.858	2.058	-0.200
30	3	18.317	19.005	-0.689	7.518	8.552	-1.033	1.575	2.041	-0.466
31	4	7.733	9.023	-1.290	8.962	9.245	-0.283	0.727	0.677	0.050
32	4	10.261	11.331	-1.070	8.512	8.592	-0.080	1.717	1.704	0.013
33	4	12.133	13.028	-0.895	9.967	9.766	0.201	1.822	1.720	0.102
34	4	11.224	12.352	-1.128	9.669	9.400	0.268	1.693	1.635	0.058
35	4	9.833	10.964	-1.131	8.611	8.868	-0.257	1.434	1.316	0.117
36	4	9.051	9.522	-0.471	8.385	8.498	-0.113	1.817	1.855	-0.038
37	4	9.966	10.840	-0.874	9.356	9.490	-0.133	0.966	0.874	0.093
38	4	9.753	10.454	-0.701	9.588	9.734	-0.146	1.542	1.557	-0.015
39	4	8.371	9.119	-0.747	9.410	9.228	0.182	1.252	1.232	0.019
40	4	9.586	10.311	-0.725	9.638	9.582	0.056	1.371	1.301	0.069
41	4	6.451	6.734	-0.282	9.394	9.667	-0.274	1.037	1.111	-0.074
42	4	8.038	8.893	-0.855	8.183	8.697	-0.514	1.293	1.339	-0.047
43	4	8.633	9.220	-0.587	8.525	8.707	-0.182	0.954	0.862	0.092
44	4	8.591	9.110	-0.519	8.645	8.695	-0.049	1.232	1.158	0.074
45	4	7.843	8.235	-0.391	6.945	7.066	-0.121	1.494	1.433	0.062

Table S7. Specific, fixed and intraspecific CM values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) calculated on log-transformed data.

		H			SLA			SM		
Plot number	Belt	Specific CM	Fixed CM	Intraspecific CM	Specific CM	Fixed CM	Intraspecific CM	Specific CM	Fixed CM	Intraspecific CM
1	1	1.072	1.047	0.025	0.971	0.961	0.009	-0.050	-0.017	-0.034
2	1	1.378	1.363	0.016	0.976	0.958	0.018	0.458	0.525	-0.067
3	1	1.040	1.029	0.010	0.990	0.968	0.022	-0.054	0.003	-0.056
4	1	1.071	1.062	0.009	0.968	0.943	0.025	0.098	0.147	-0.049
5	1	1.119	1.115	0.004	0.975	0.950	0.024	0.210	0.250	-0.040
6	1	1.053	1.043	0.010	0.987	0.965	0.022	0.056	0.099	-0.042
7	1	0.933	0.914	0.019	1.009	0.991	0.017	-0.202	-0.164	-0.038
8	1	1.040	1.029	0.010	0.990	0.968	0.022	-0.054	0.003	-0.056
9	1	1.072	1.076	-0.004	0.942	0.908	0.034	0.075	0.126	-0.050
10	2	1.029	1.021	0.009	1.033	1.013	0.020	0.129	0.081	0.048
11	2	1.029	1.021	0.009	1.033	1.013	0.020	0.129	0.081	0.048
12	2	0.992	0.987	0.005	1.040	1.016	0.024	0.177	0.131	0.046
13	2	0.992	0.987	0.005	1.040	1.016	0.024	0.177	0.131	0.046
14	2	0.992	0.987	0.005	1.040	1.016	0.024	0.177	0.131	0.046
15	2	1.091	1.081	0.011	1.054	1.036	0.018	0.185	0.139	0.046
16	2	1.019	1.011	0.008	1.028	1.000	0.027	0.315	0.274	0.041
17	2	1.108	1.099	0.009	1.094	1.063	0.031	0.181	0.140	0.042
18	2	0.931	0.925	0.006	1.009	0.978	0.032	0.144	0.115	0.029
19	2	1.028	1.027	0.000	1.059	1.043	0.015	0.150	0.109	0.041

Table S7. Specific, fixed and intraspecific CM values for maximum height (H, cm), specific leaf area (SLA, mm²/mg), and seed mass (SM, mg) calculated on log-transformed data.

Plot number	Belt	H			SLA			SM		
		Specific CM	Fixed CM	Intraspecific CM	Specific CM	Fixed CM	Intraspecific CM	Specific CM	Fixed CM	Intraspecific CM
20	3	1.298	1.285	0.013	1.008	1.045	-0.037	0.433	0.440	-0.007
21	3	1.027	0.996	0.031	0.898	0.952	-0.054	0.107	0.103	0.004
22	3	1.197	1.187	0.010	0.969	1.018	-0.049	0.242	0.250	-0.008
23	3	1.207	1.201	0.006	0.947	0.990	-0.042	0.251	0.271	-0.021
24	3	1.172	1.170	0.002	0.942	0.977	-0.034	0.177	0.220	-0.042
25	3	1.137	1.125	0.012	0.889	0.931	-0.041	0.013	0.075	-0.062
26	3	1.197	1.187	0.010	0.969	1.018	-0.049	0.242	0.250	-0.008
27	3	1.347	1.322	0.025	0.953	1.003	-0.050	0.301	0.350	-0.049
28	3	1.221	1.209	0.013	0.961	0.994	-0.034	0.204	0.228	-0.024
29	3	1.233	1.219	0.014	0.957	0.994	-0.037	0.164	0.191	-0.027
30	3	1.246	1.263	-0.017	0.858	0.917	-0.059	0.113	0.205	-0.092
31	4	0.775	0.869	-0.094	0.951	0.964	-0.013	-0.236	-0.240	0.004
32	4	0.889	0.926	-0.037	0.887	0.895	-0.009	0.086	0.085	0.001
33	4	0.969	0.995	-0.025	0.973	0.974	-0.001	0.077	0.065	0.012
34	4	0.942	0.971	-0.029	0.928	0.921	0.007	0.028	0.022	0.006
35	4	0.868	0.916	-0.048	0.921	0.938	-0.016	-0.006	-0.025	0.018
36	4	0.856	0.868	-0.012	0.866	0.876	-0.010	0.076	0.083	-0.007
37	4	0.950	0.977	-0.027	0.954	0.964	-0.010	-0.211	-0.235	0.024
38	4	0.885	0.918	-0.033	0.968	0.979	-0.011	-0.051	-0.047	-0.003
39	4	0.820	0.854	-0.033	0.931	0.926	0.005	-0.084	-0.084	0.000
40	4	0.869	0.904	-0.035	0.970	0.973	-0.003	-0.098	-0.107	0.009
41	4	0.761	0.784	-0.023	0.962	0.974	-0.012	-0.191	-0.181	-0.011
42	4	0.800	0.845	-0.045	0.902	0.929	-0.027	-0.021	-0.014	-0.007
43	4	0.855	0.867	-0.013	0.905	0.921	-0.015	-0.314	-0.329	0.015
44	4	0.876	0.889	-0.013	0.915	0.921	-0.006	-0.043	-0.063	0.020
45	4	0.822	0.830	-0.008	0.777	0.787	-0.010	0.006	-0.004	0.010

Table S8. Results of ANOVAs for CWM of plant height (H) calculated with log-transformed values. A) ‘Fixed’ and ‘specific’ averages and intraspecific variability effect were analyzed separately (one-way ANOVA) followed by post hoc (HSD) tests for pairwise comparisons. B) Variability of individual components of trait variation (turnover, intraspecific and their covariation) between belts. C) Proportions of variability of individual components, and their parts explained by elevation (belt). For details, see Table 1.

A)															
Fixed CWM						Specific CWM					Intraspecific CWM				
	SS	DF	MS	F	p	SS	DF	MS	F	p	SS	DF	MS	F	p
Belt	0.262	3	0.087	4.666	0.007	0.410	3	0.137	7.315	<0.001	0.035	3	0.012	21.150	<0.0001
Residuals	0.769	41	0.019			0.766	41	0.019			0.023	41	0.001		
Post hoc (HSD) tests						Post hoc (HSD) tests						Post hoc (HSD) tests			
Belt pairwise comparisons	p					Belt pairwise comparisons	p					Belt pairwise comparisons	p		
1 vs 2	0.803					1 vs 2	0.849					1 vs 2	0.946		
1 vs 3	0.308					1 vs 3	0.323					1 vs 3	0.997		
1 vs 4	0.452					1 vs 4	0.076					1 vs 4	<0.0001		
2 vs 3	0.041					2 vs 3	0.056					2 vs 3	0.861		
2 vs 4	0.953					2 vs 4	0.355					2 vs 4	<0.0001		
3 vs 4	0.005					3 vs 4	<0.001					3 vs 4	<0.0001		
B)															
	Turnover					Intraspecific variability						Covariation		Total	
Belt	0.262					0.035						0.113		0.410	
Residuals	0.769					0.023						-0.025		0.766	
Total	1.031					0.058						0.088		1.176	
C)															
	Turnover					Intraspecific variability						Covariation		Total	
Belt	0.223					0.030						0.096		0.349	
Residuals	0.653					0.019						-0.021		0.651	
Total	0.876					0.049						0.075		1.000	

Table S9. Results of ANOVAs for CWM of specific leaf area (SLA) calculated with log-transformed values. A) ‘Fixed’ and ‘specific’ averages and intraspecific variability effect were analyzed separately (one-way ANOVA) followed by post hoc (HSD) tests for pairwise comparisons. B) Variability of individual components of trait variation (turnover, intraspecific and their covariation) between belts. C) Proportions of variability of individual components, and their parts explained by elevation (belt). For details, see Table 1.

A)															
Fixed CWM						Specific CWM					Intraspecific CWM				
	SS	DF	MS	F	<i>p</i>	SS	DF	MS	F	<i>p</i>	SS	DF	MS	F	<i>p</i>
Belt	0.015	3	0.005	2.927	0.045	0.014	3	0.005	2.387	0.083	0.029	3	0.010	39.940	<0.0001
Residuals	0.072	41	0.002			0.079	41	0.002			0.010	41	0.000		
Post hoc (HSD) tests						Post hoc (HSD) tests						Post hoc (HSD) tests			
Belt pairwise comparisons	<i>p</i>					Belt pairwise comparisons	<i>p</i>					Belt pairwise comparisons	<i>p</i>		
1 vs 2	0.836					1 vs 2	1.000					1 vs 2	0.194		
1 vs 3	0.476					1 vs 3	0.503					1 vs 3	<0.0001		
1 vs 4	0.730					1 vs 4	0.146					1 vs 4	0.009		
2 vs 3	0.099					2 vs 3	0.532					2 vs 3	<0.0001		
2 vs 4	0.999					2 vs 4	0.153					2 vs 4	<0.0001		
3 vs 4	0.043					3 vs 4	0.887					3 vs 4	<0.0001		
B)															
	Turnover					Intraspecific variability					Covariation			Total	
Belt	0.015					0.029					-0.031			0.014	
Residuals	0.072					0.010					-0.003			0.079	
Total	0.088					0.039					-0.034			0.093	
C)															
	Turnover					Intraspecific variability					Covariation			Total	
Belt	0.167					0.311					-0.329			0.149	
Residuals	0.780					0.106					-0.035			0.851	
Total	0.947					0.417					-0.364			1.000	

Table S10. Results of ANOVAs for CWM of seed mass (SM) calculated with log-transformed values. A) ‘Fixed’ and ‘specific’ averages and intraspecific variability effect were analyzed separately (one-way ANOVA) followed by post hoc (HSD) tests for pairwise comparisons. B) Variability of individual components of trait variation (turnover, intraspecific and their covariation) between belts. C) Proportions of variability of individual components, and their parts explained by elevation (belt). For details, see Table 1.

A)																	
	Fixed CWM					Specific CWM					Intraspecific CWM						
	SS	DF	MS	F	p	SS	DF	MS	F	p	SS	DF	MS	F	p		
Belt	0.395	3	0.132	3.337	0.029	0.248	3	0.083	2.109	0.114	0.060	3	0.020	22.780	<0.0001		
Residuals	1.618	41	0.039			1.607	41	0.039			0.036	41	0.001				
Post hoc (HSD) tests		Post hoc (HSD) tests									Post hoc (HSD) tests						
Belt pairwise comparisons		p	Belt pairwise comparisons									p	Belt pairwise comparisons				p
1 vs 2		0.987	1 vs 2									0.911	1 vs 2				<0.0001
1 vs 3		0.270	1 vs 3									0.255	1 vs 3				0.997
1 vs 4		0.787	1 vs 4									0.994	1 vs 4				<0.001
2 vs 3		0.129	2 vs 3									0.610	2 vs 3				<0.0001
2 vs 4		0.935	2 vs 4									0.751	2 vs 4				0.044
3 vs 4		0.019	3 vs 4									0.096	3 vs 4				<0.001
B)																	
	Turnover		Intraspecific variability				Covariation				Total						
Belt	0.395		0.060				-0.207				0.248						
Residuals	1.618		0.036				-0.048				1.607						
Total	2.014		0.096				-0.255				1.855						
C)																	
	Turnover		Intraspecific variability				Covariation				Total						
Belt	0.213		0.032				-0.112				0.134						
Residuals	0.873		0.019				-0.026				0.866						
Total	1.086		0.052				-0.138				1.000						

Table S11. Results of ANOVAs for CM of plant eight (H) calculated using log-transformed values. A) ‘Fixed’ and ‘specific’ averages and intraspecific variability effect were analyzed separately (one-way ANOVA) followed by post hoc (HSD) tests for pairwise comparisons. B) Variability of individual components of trait variation (turnover, intraspecific and their covariation) between belts. C) Proportions of variability of individual components, and their parts explained by elevation (belt). For details, see Table 1.

A)																	
	Fixed CM					Specific CM					Intraspecific CM						
	SS	DF	MS	F	p	SS	DF	MS	F	p	SS	DF	MS	F	p		
Belt	0.603	3	0.201	31.610	<0.0001	0.796	3	0.265	41.770	<0.0001	0.017	3	0.006	28.330	<0.0001		
Residuals	0.261	41	0.006			0.260	41	0.006			0.008	41	0.000				
Post hoc (HSD) tests											Post hoc (HSD) tests						
Belt pairwise comparisons		p										Belt pairwise comparisons		p			
1 vs 2		0.358										1 vs 2		0.914			
1 vs 3		0.008										1 vs 3		1.000			
1 vs 4		<0.0001										1 vs 4		<0.0001			
2 vs 3		<0.0001										2 vs 3		0.916			
2 vs 4		0.003										2 vs 4		<0.0001			
3 vs 4		<0.0001										3 vs 4		<0.0001			
B)																	
	Turnover	Intraspecific variability									Covariation				Total		
Belt	0.603	0.017									0.176				0.796		
Residuals	0.261	0.008									-0.009				0.260		
Total	0.864	0.025									0.167				1.056		
C)																	
	Turnover	Intraspecific variability									Covariation				Total		
Belt	0.571	0.016									0.166				0.754		
Residuals	0.247	0.008									-0.008				0.246		
Total	0.818	0.024									0.158				1.000		

Table S12. Results of ANOVAs for CM of specific leaf area (SLA) calculated using log-transformed values. A) ‘Fixed’ and ‘specific’ averages and intraspecific variability effect were analyzed separately (one-way ANOVA) followed by post hoc (HSD) tests for pairwise comparisons. B) Variability of individual components of trait variation (turnover, intraspecific and their covariation) between belts. C) Proportions of variability of individual components, and their parts explained by elevation (belt). For details, see Table 1.

A)																	
Fixed CM						Specific CM					Intraspecific CM						
	SS	DF	MS	F	p	SS	DF	MS	F	p	SS	DF	MS	F	p		
Belt	0.053	3	0.018	12.300	<0.0001	0.098	3	0.033	21.540	<0.0001	0.032	3	0.011	182.200	<0.0001		
Residuals	0.059	41	0.001			0.062	41	0.002			0.002	41	0.000				
Post hoc (HSD) tests						Post hoc (HSD) tests					Post hoc (HSD) tests						
Belt pairwise comparisons		p				Belt pairwise comparisons		p			Belt pairwise comparisons		p				
1 vs 2		0.005				1 vs 2		0.004			1 vs 2		0.946				
1 vs 3		0.357				1 vs 3		0.159			1 vs 3		<0.0001				
1 vs 4		0.328				1 vs 4		0.006			1 vs 4		<0.0001				
2 vs 3		0.182				2 vs 3		<0.0001			2 vs 3		<0.0001				
2 vs 4		<0.0001				2 vs 4		<0.0001			2 vs 4		<0.0001				
3 vs 4		0.003				3 vs 4		0.559			3 vs 4		<0.0001				
B)																	
Turnover							Intraspecific variability					Covariation				Total	
Belt		0.053					0.032					0.013				0.098	
Residuals		0.059					0.002					0.001				0.062	
Total		0.113					0.034					0.014				0.161	
C)																	
Turnover							Intraspecific variability					Covariation				Total	
Belt		0.332					0.197					0.083				0.612	
Residuals		0.369					0.015					0.004				0.388	
Total		0.701					0.211					0.088				1.000	

Table S13. Results of ANOVAs for CM of seed mass (SLA) calculated using log-transformed values. A) ‘Fixed’ and ‘specific’ averages and intraspecific variability effect were analyzed separately (one-way ANOVA) followed by post hoc (HSD) tests for pairwise comparisons. B) Variability of individual components of trait variation (turnover, intraspecific and their covariation) between belts. C) Proportions of variability of individual components, and their parts explained by elevation (belt). For details, see Table 1.

A)																
	Fixed CM					Specific CM					Intraspecific CM					
	SS	DF	MS	F	p	SS	DF	MS	F	p	SS	DF	MS	F	p	
Belt	0.643	3	0.214	13.330	<0.0001	0.584	3	0.195	12.260	<0.0001	0.049	3	0.016	61.100	<0.0001	
Residuals	0.659	41	0.016			0.651	41	0.016			0.011	41	0.000			
Post hoc (HSD) tests											Post hoc (HSD) tests					
Belt pairwise comparisons		p										Belt pairwise comparisons		p		
1 vs 2		0.972										1 vs 2		<0.0001		
1 vs 3		0.133										1 vs 3		0.096		
1 vs 4		0.009										1 vs 4		<0.0001		
2 vs 3		0.274										2 vs 3		<0.0001		
2 vs 4		0.002										2 vs 4		<0.0001		
3 vs 4		<0.0001										3 vs 4		<0.0001		
B)																
	Turnover					Intraspecific variability								Covariation		Total
Belt	0.643					0.049								-0.107		0.584
Residuals	0.659					0.011								-0.019		0.651
Total	1.302					0.060								-0.126		1.236
C)																
	Turnover					Intraspecific variability								Covariation		Total
Belt	0.520					0.040								-0.087		0.473
Residuals	0.533					0.009								-0.015		0.527
Total	1.053					0.048								-0.102		1.000

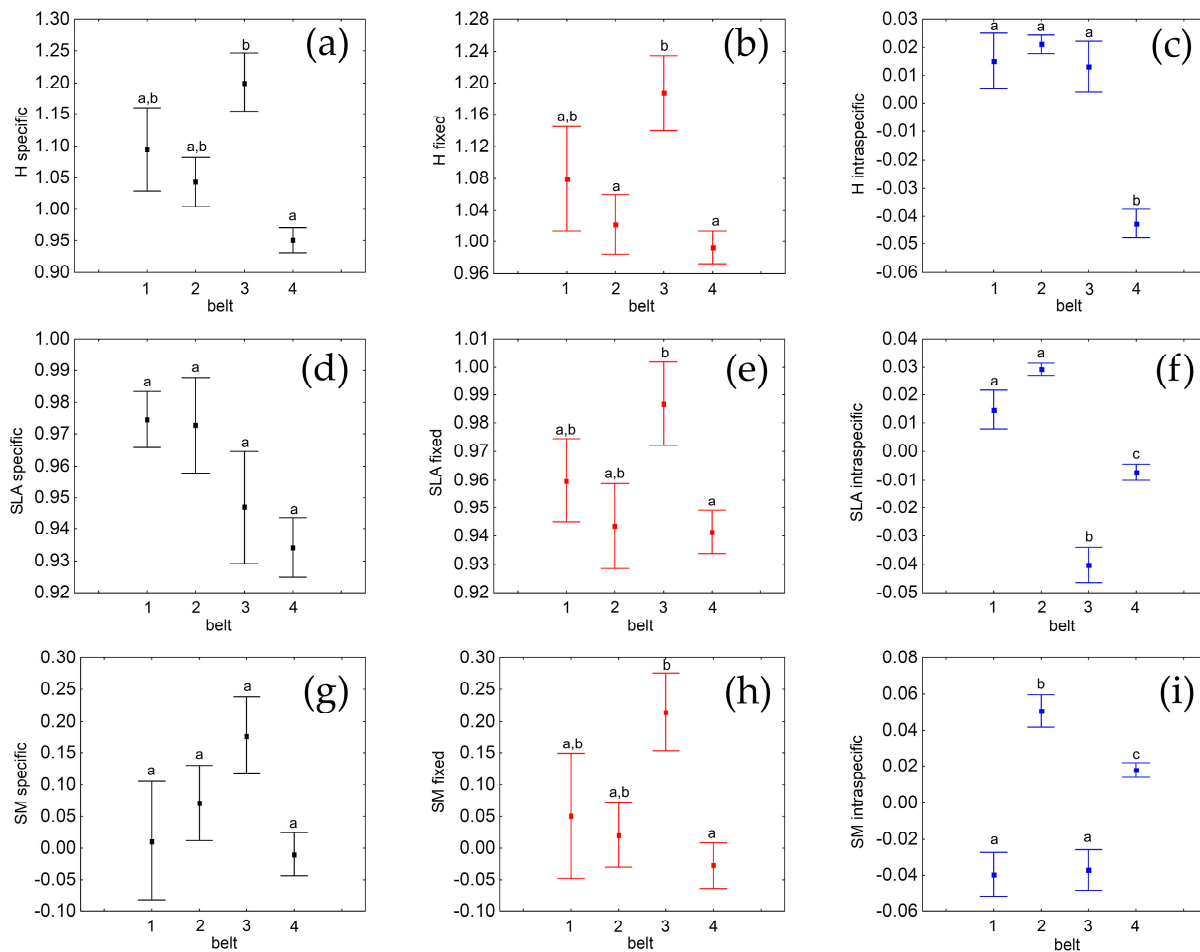


Figure 1S. Averages and standard errors of CWM values (after log-transformation) in the four elevational belts (Elevation: 1, 2, 3, 4) calculated for plant height (H: a, b, c), specific leaf area (SLA: d, e, f) and seed mass (SM, g, h, i), along an elevational gradient in Central Italy. CWMs were calculated for the specific variability (a, d, g), the fixed component (b, e, h) and the intraspecific variability (c, f, i). Letters indicate Tukey honest significant difference (HSD) post-hoc tests at the $p < 0.05$ level, following ANOVA.

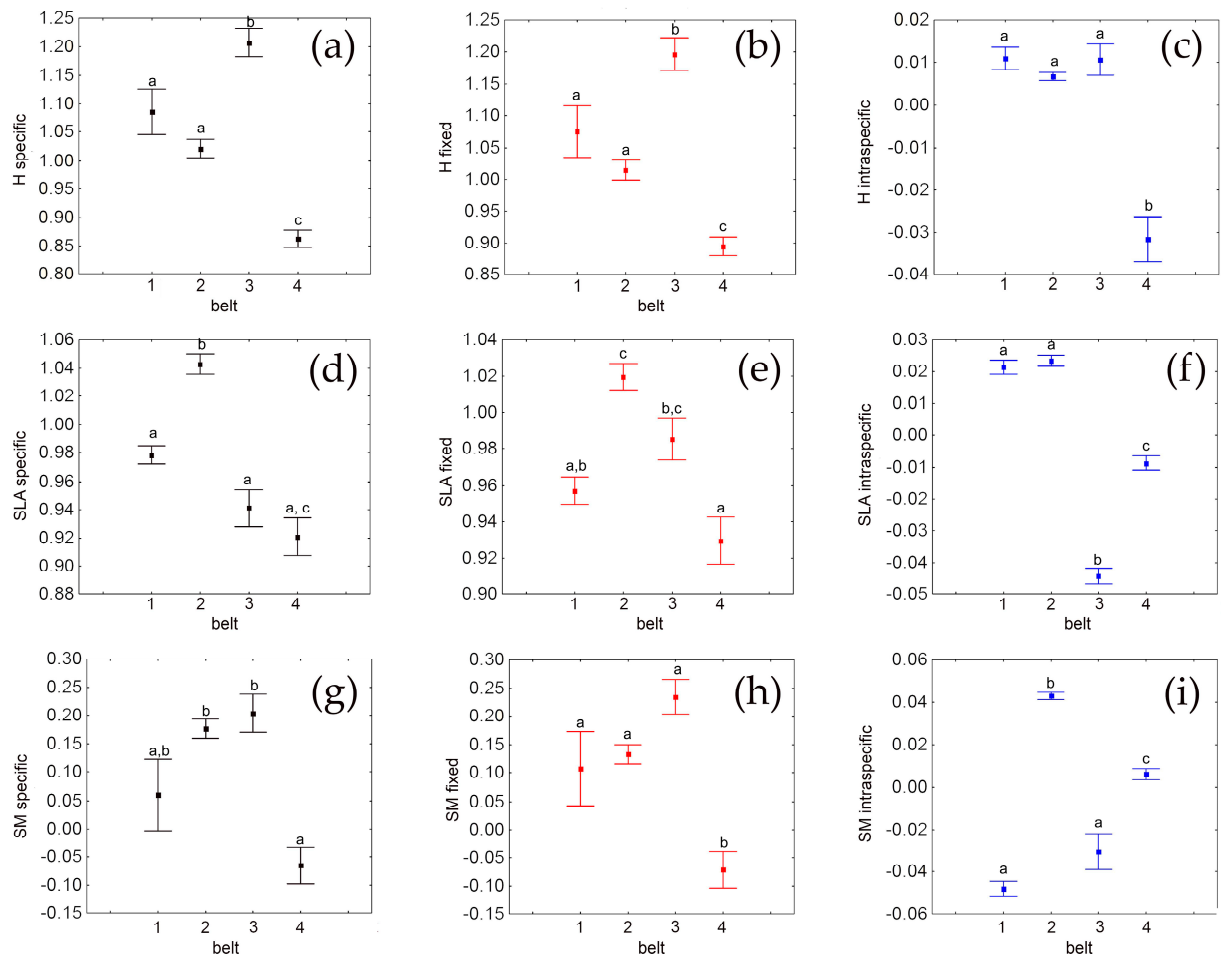


Figure 2S. Averages and standard errors of CM values (after log-transformation) in the four elevational belts (Elevation: 1, 2, 3, 4) calculated for plant height (H: a, b, c), specific leaf area (SLA: d, e, f) and seed mass (SM, g, h, i), along an elevational gradient in Central Italy. CWMs were calculated for the specific variability (a, d, g), the fixed component (b, e, h) and the intraspecific variability (c, f, i). Letters indicate Tukey honest significant difference (HSD) post-hoc tests at the $p < 0.05$ level, following ANOVA.