

Table S1. Values for the degree of agreement μ_{C_k, C_l} between the leaf anatomical and physiological parameters determined in Italian (IT) and Bulgarian (BG) populations of *P. orientalis* plants under control (FTSW = 95%) and drought (FTSW = 28%) conditions. LT – leaf thickness, PP – palisade parenchyma, SP – spongy parenchyma, AdE – adaxial epidermis, AbE – abaxial epidermis, InS – intercellular space, A_{sat} – CO₂ saturated photosynthetic rate, V_{cmax} – maximum carboxylation rate of Rubisco, J_{max} – maximum rate of photosynthetic electron transport, TPU – triose phosphate utilization, v_c – carboxylation rate, v_o – oxygenation rate, R_p – photorespiration, g_m - mesophyll conductance. The IT population data are shown in upper triangle of the table, while those for BG population – in the lower triangle. The degrees of agreement showing positive correlations are presented in blue color, those showing the negative correlations – in red color.

μ_{C_k, C_l}	LT	PP	SP	AdE	AbE	InS	A_{sat}	V_{cmax}	J_{max}	TPU	v_c	v_o	R_p	g_m
LT		0.82	0.7	0.61	0.52	0.35	0.68	0.85	0.76	0.71	0.86	0.20	0.17	0.71
PP	0.71		0.7	0.52	0.48	0.44	0.65	0.7	0.67	0.65	0.74	0.14	0.17	0.71
SP	0.59	0.55		0.47	0.45	0.35	0.80	0.82	0.79	0.77	0.62	0.20	0.2	0.80
AdE	0.71	0.73	0.48		0.42	0.45	0.47	0.58	0.58	0.52	0.65	0.45	0.45	0.45
AbE	0.55	0.38	0.62	0.44		0.59	0.5	0.45	0.42	0.44	0.47	0.56	0.5	0.55
InS	0.55	0.65	0.5	0.44	0.52		0.15	0.29	0.17	0.21	0.27	0.61	0.58	0.33
A_{sat}	0.79	0.89	0.56	0.65	0.42	0.67		0.80	0.86	0.83	0.7	0.3	0.33	0.77
V_{cmax}	0.76	0.71	0.5	0.80	0.39	0.45	0.76		0.85	0.83	0.80	0.23	0.23	0.80
J_{max}	0.77	0.85	0.58	0.76	0.35	0.56	0.83	0.74		0.92	0.77	0.32	0.35	0.74
TPU	0.77	0.80	0.55	0.76	0.35	0.55	0.82	0.76	0.95		0.74	0.32	0.35	0.76
v_c	0.82	0.74	0.53	0.77	0.48	0.52	0.76	0.73	0.83	0.86		0.27	0.24	0.71
v_o	0.41	0.55	0.58	0.42	0.5	0.59	0.53	0.47	0.42	0.38	0.32		0.94	0.32
R_p	0.41	0.55	0.58	0.42	0.5	0.59	0.53	0.47	0.42	0.38	0.32	1.00		0.26
g_m	0.73	0.7	0.41	0.76	0.35	0.5	0.7	0.74	0.76	0.77	0.76	0.32	0.32	

Table S2. Values for the degree of disagreement v_{C_k, C_l} between the leaf anatomical and physiological parameters determined in Italian (IT) and Bulgarian (BG) populations of *P. orientalis* plants under control (FTSW = 95%) and drought (FTSW = 28%) conditions. LT – leaf thickness, PP – palisade parenchyma, SP – spongy parenchyma, AdE – adaxial epidermis, AbE – abaxial epidermis, InS – intercellular space, A_{sat} – CO₂ saturated photosynthetic rate, V_{cmax} – maximum carboxylation rate of Rubisco, J_{max} – maximum rate of photosynthetic electron transport, TPU – triose phosphate utilization, v_c – carboxylation rate, v_o – oxygenation rate, R_p – photorespiration, g_m - mesophyll conductance. The IT population data are shown in upper triangle of the table, while those for BG population – in the lower triangle. The degrees of disagreement are presented in the same colours as the corresponding values of the degree of agreement.

v_{C_k, C_l}	LT	PP	SP	AdE	AbE	InS	A_{sat}	V_{cmax}	J_{max}	TPU	v_c	v_o	R_p	g_m
LT		0.18	0.3	0.38	0.48	0.65	0.32	0.15	0.24	0.27	0.14	0.80	0.83	0.27
PP	0.29		0.3	0.47	0.52	0.56	0.35	0.3	0.33	0.33	0.26	0.86	0.83	0.27
SP	0.41	0.45		0.52	0.55	0.65	0.20	0.18	0.21	0.21	0.38	0.80	0.80	0.18
AdE	0.29	0.27	0.52		0.56	0.53	0.52	0.41	0.41	0.45	0.33	0.53	0.53	0.52
AbE	0.45	0.62	0.38	0.56		0.41	0.50	0.55	0.58	0.55	0.53	0.44	0.5	0.44
InS	0.45	0.35	0.5	0.56	0.48		0.85	0.71	0.83	0.77	0.73	0.39	0.42	0.65
A_{sat}	0.21	0.11	0.44	0.35	0.58	0.33		0.20	0.14	0.15	0.3	0.7	0.67	0.21
V_{cmax}	0.24	0.29	0.5	0.20	0.61	0.55	0.24		0.15	0.15	0.20	0.77	0.77	0.18
J_{max}	0.23	0.15	0.42	0.24	0.65	0.44	0.17	0.26		0.06	0.23	0.68	0.65	0.24
TPU	0.21	0.18	0.44	0.23	0.64	0.44	0.17	0.23	0.03		0.24	0.67	0.64	0.21
v_c	0.18	0.26	0.47	0.23	0.52	0.48	0.24	0.27	0.17	0.12		0.73	0.76	0.27
v_o	0.59	0.45	0.42	0.58	0.5	0.41	0.47	0.53	0.58	0.61	0.68		0.06	0.67
R_p	0.59	0.45	0.42	0.58	0.5	0.41	0.47	0.53	0.58	0.61	0.68	0		0.73
g_m	0.18	0.21	0.5	0.15	0.56	0.41	0.21	0.17	0.15	0.12	0.15	0.59	0.59	

