

Supplementary materials

Figure S1. Reflectance curves in *Platyserium bifurcatum* leaves: A - average values at the beginning of the experiment and 6 week after dehydration, B - average values in control plants at the beginning and end of the experiment. Mean values of 5 biological replicates for each treatment

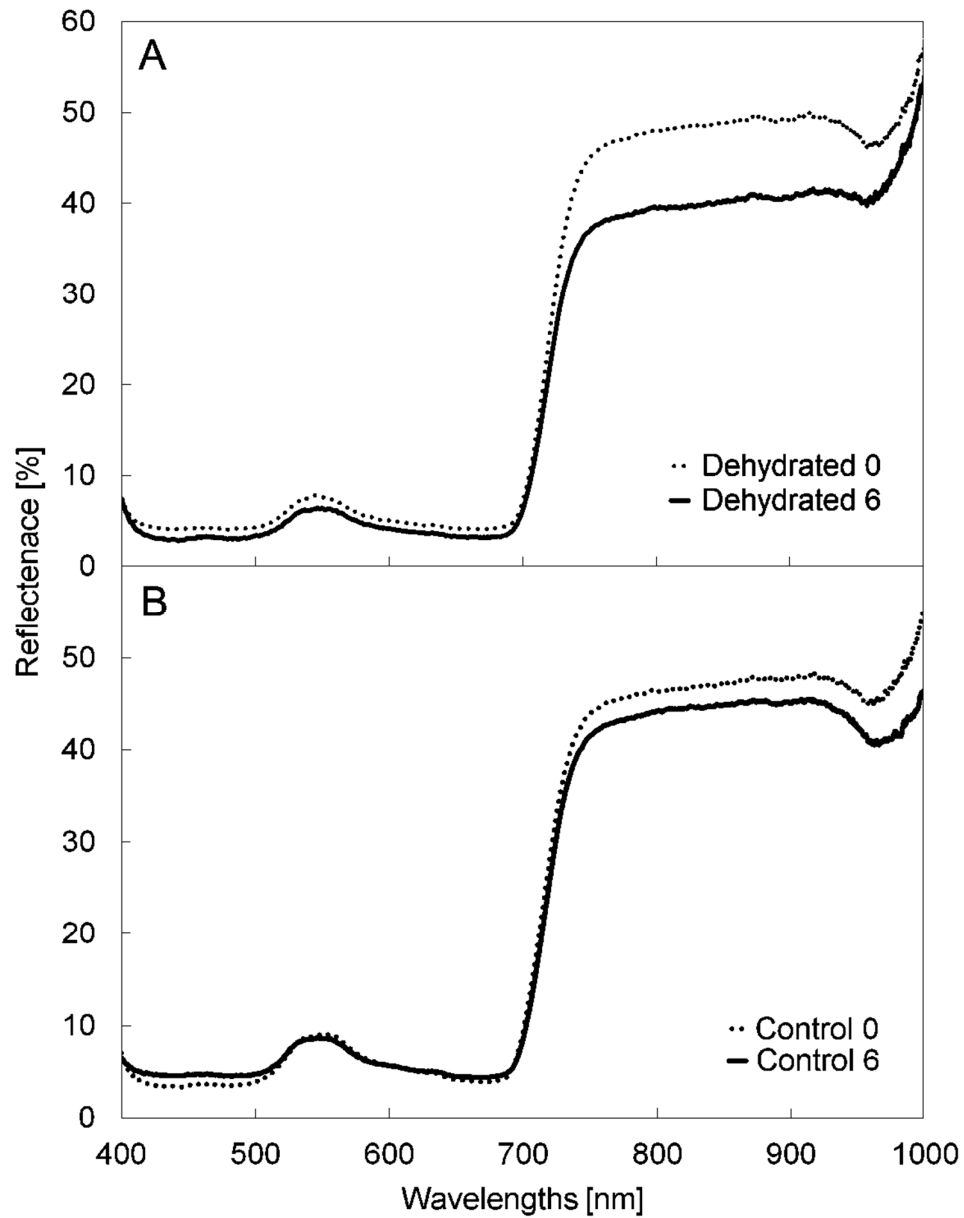


Figure S2. Chlorophyll *a* fluorescence induction curves (OJIP) in *Platycerium bifurcatum* leaves: A - in the following 6 weeks after dehydration and B - in control plants (at the beginning and in the following 6 weeks of the experiment. Mean values of 5 biological replicates for each treatment

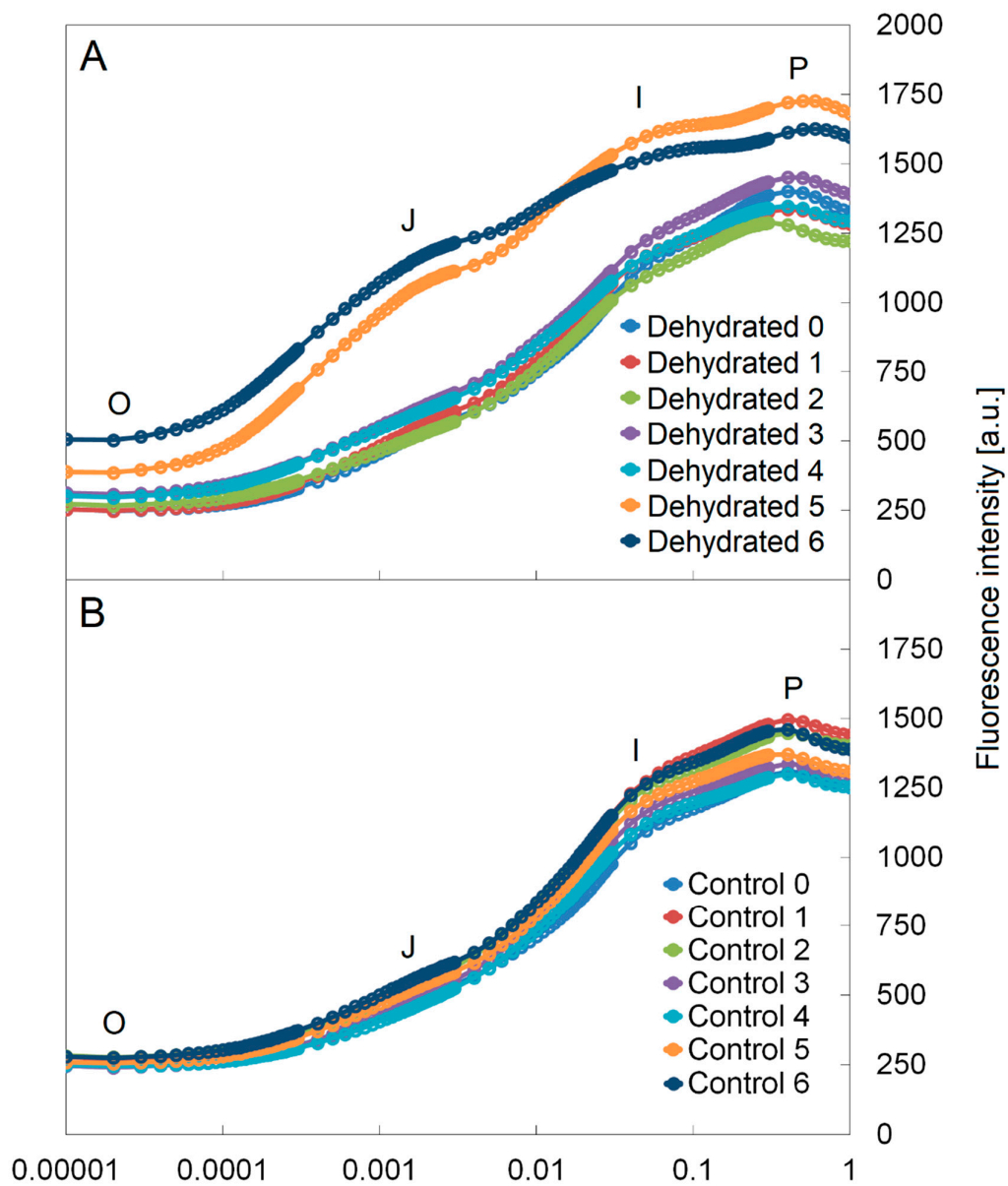


Figure S3. Low-temperature fluorescence curves at 77K in *Platycerium bifurcatum* leaves: A - in the following 6 weeks after dehydration and B - in control plants (at the beginning and in the following 6 weeks of the experiment. Mean values of 5 biological replicates for each treatment

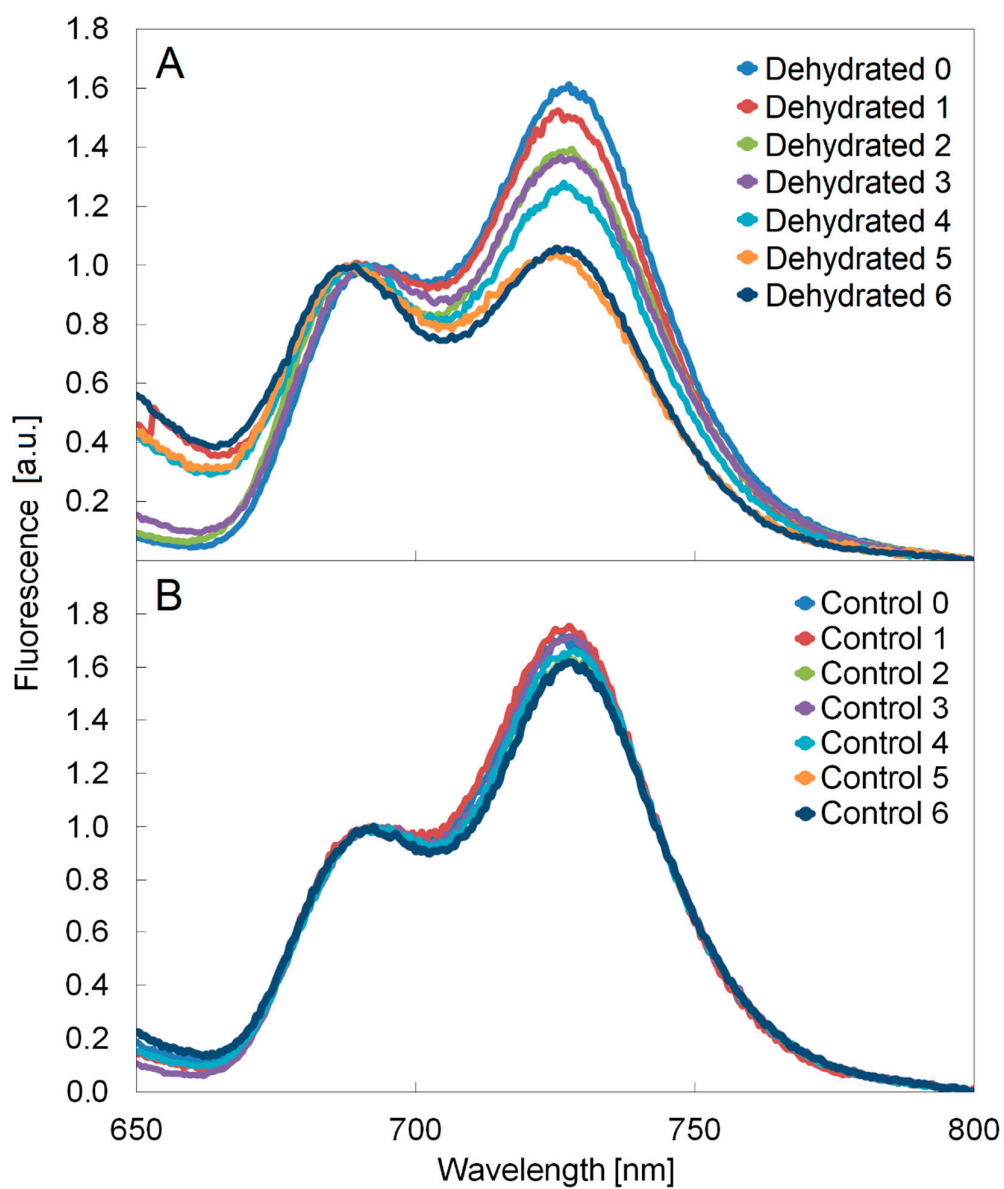


Table S1. Reflectance parameters of *Platycerium bifurcatum* leaves under control conditions for 6 weeks (W1-W6) and at the beginning of the experiment (W0). Mean values from 5 biological replicates marked with different letters in the line differ significantly according to the Tukey's test, $p \leq 0.05$

Parameters	W0	W1	W2	W3	W4	W5	W6
ARI1	0.006a ±0.002	0.002a ±0.002	0.001a ±0.003	0.003a ±0.002	0.004a ±0.002	0.005a ±0.003	0.006a ±0.002
CRI1	0.162a ±0.025	0.156a ±0.023	0.108a ±0.008	0.109a ±0.009	0.115a ±0.008	0.110a ±0.009	0.107a ±0.008
SIPI	0.868a ±0.010	0.878a ±0.009	0.857a ±0.007	0.853a ±0.006	0.856a ±0.007	0.850a ±0.007	0.858a ±0.006
FRI	-1.883a ±0.216	-2.178a ±0.458	-1.766a ±0.247	-1.916a ±0.216	-2.151a ±0.195	-1.875a ±0.205	-2.094a ±0.206
PRI	0.088a ±0.004	0.063bc ±0.006	0.080ab ±0.004	0.069ab ±0.006	0.069ab ±0.004	0.068ab ±0.007	0.042c ±0.005

Table S2. Values of chlorophyll *a* fluorescence parameters of *Platycerium bifurcatum* leaves under control conditions for 6 weeks (W1-W6) and at the beginning of the experiment (W0). Mean values from 5 biological replicates marked with different letters in the line differ significantly according to the Tukey's test, $p \leq 0.05$

Parameters	W0	W1	W2	W3	W4	W5	W6
Measured parameters and basic JIP-test parameters							
PI _{total}	8.450a ±1.284	7.364ab ±0.729	5.877b ±0.966	6.859ab ±0.962	6.546ab ±0.852	4.988b ±0.308	5.083b ±0.362
Fv/F ₀	4.556a ±0.123	4.639a ±0.195	4.381a ±0.216	4.613a ±0.262	4.384a ±0.341	4.608a ±0.110	4.523a ±0.125
Fv/Fm	0.819a ±0.004	0.826a ±0.004	0.811a ±0.008	0.824a ±0.006	0.806a ±0.014	0.821a ±0.004	0.818a ±0.004
A _M	47228a ±3908	43852ab ±3758	41567ab ±4355	36197b ±2587	34272b ±2899	38784ab ±2937	39412ab ±3289
Specific Energy fluxes expressed per active RC of PSII							
ABS/RC	1.295a ±0.039	1.235a ±0.043	1.360a ±0.066	1.237a ±0.063	1.250a ±0.068	1.400a ±0.049	1.412a ±0.056
DI ₀ /RC	0.235a ±0.011	0.224a ±0.015	0.262a ±0.023	0.233a ±0.024	0.250a ±0.032	0.252a ±0.013	0.259a ±0.015
TR ₀ /RC	1.060ab ±0.029	1.011b ±0.030	1.099ab ±0.044	1.004b ±0.040	1.000b ±0.039	1.147a ±0.037	1.153a ±0.041
ET ₀ /RC	0.801ab ±0.016	0.774ab ±0.024	0.830ab ±0.029	0.755b ±0.031	0.767ab ±0.032	0.842ab ±0.031	0.854a ±0.038
RE ₀ /RC	0.324a ±0.015	0.282a ±0.014	0.283a ±0.021	0.266a ±0.024	0.269a ±0.023	0.295a ±0.018	0.303a ±0.021
Quantum yields parameters							
φPo	0.819a ±0.004	0.821a ±0.006	0.811a ±0.008	0.817a ±0.010	0.806a ±0.014	0.821a ±0.004	0.818a ±0.004
φEo	0.621a ±0.011	0.629a ±0.010	0.615a ±0.014	0.615a ±0.013	0.618a ±0.016	0.602a ±0.009	0.604a ±0.010
φRo	0.252a ±0.015	0.228ab ±0.008	0.208b ±0.014	0.214b ±0.014	0.213b ±0.012	0.209b ±0.007	0.212b ±0.009