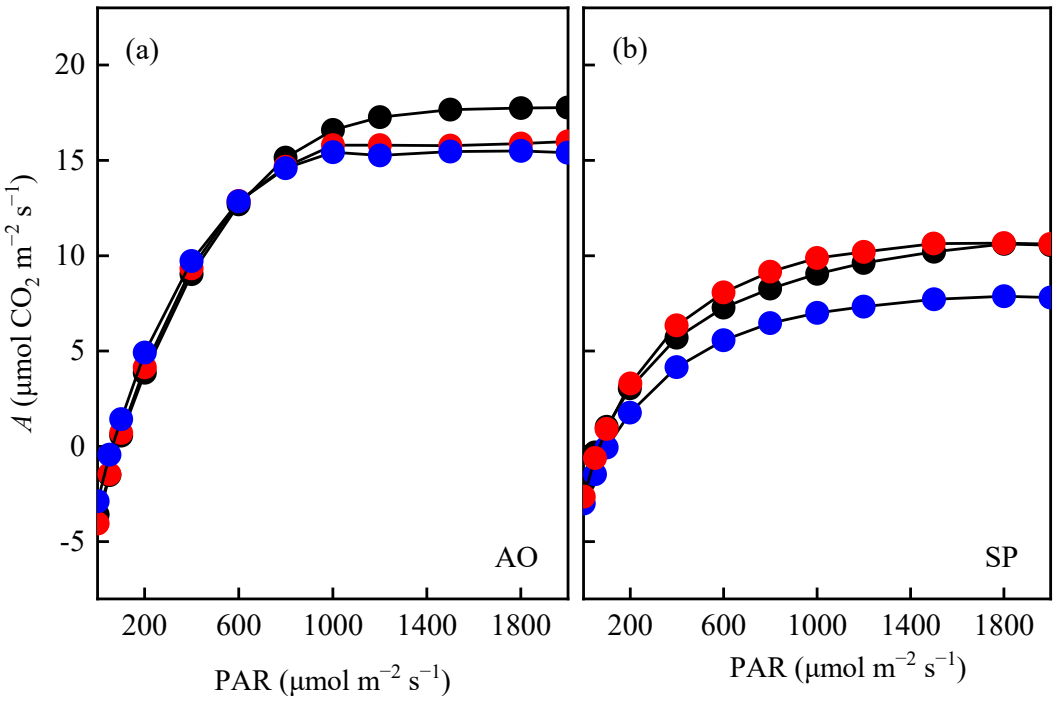

Figure S1 Photosynthetic light-response curves of *A. ordosica* (AO, left-side panels) and *S. psammophila* (SP, right-side panels). Different colours represent different individuals of *A. ordosica* and *S. psammophila*.

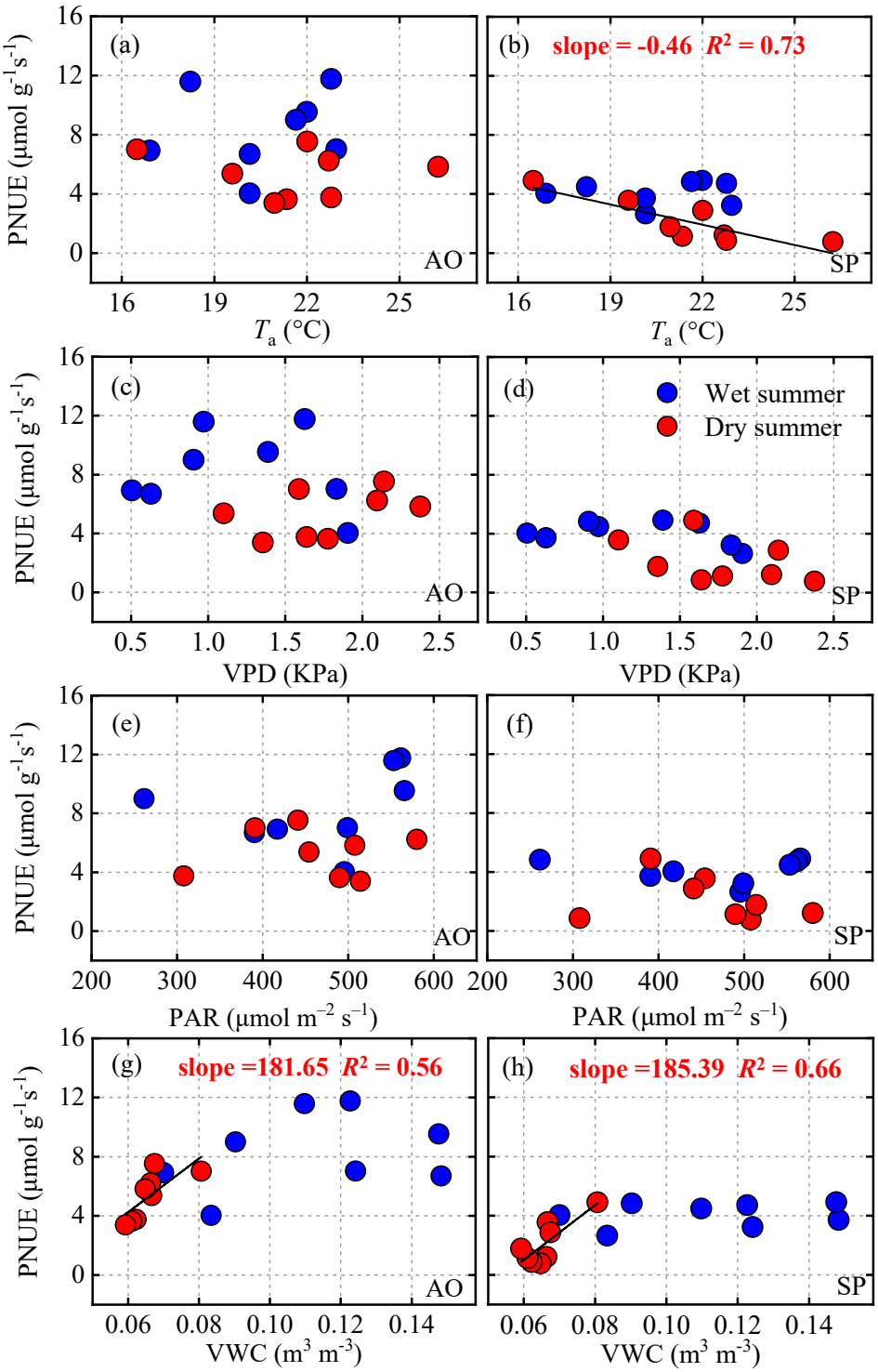

Figure S2 Pairwise relationships between photosynthetic N use efficiency (PNUE) and air temperature (T_a, a and b), water vapor pressure deficit (VPD, c and d), photosynthetically active radiation (PAR, e and f), volumetric soil water content at a 30-cm depth (VWC, g and h) associated with *A. ordosica* (AO, left-side panels) and *S. psammophila* (SP, right-side panels), respectively.

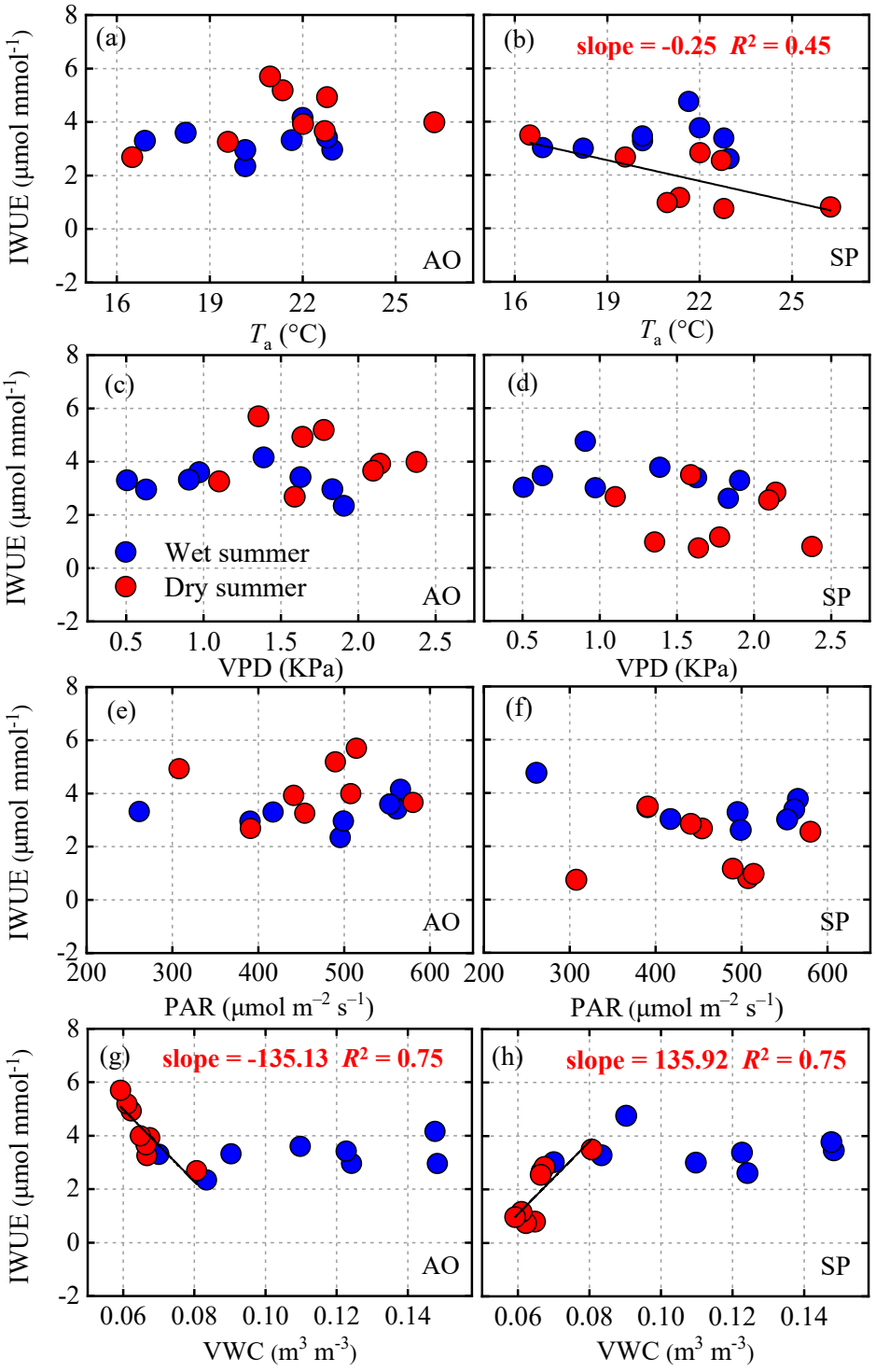

Figure S3 Pairwise relationships between instantaneous water use efficiency (IWUE) and air temperature (T_a, a and b), water vapor pressure deficit (VPD, c and d), photosynthetically active radiation (PAR, e and f), volumetric soil water content at a 30-cm depth (VWC, g and h) associated with *A. ordosica* (AO, left-side panels) and *S. psammophila* (SP, right-side panels), respectively.

Table S1. Correlation coefficients for pairwise relationships between resource use efficiency (RUE, with respect to water and N use), and leaf mass and N content per leaf area (LMA and N_{area}). Statistically significant correlations ($P < 0.05$) are displayed in bold.

Species	RUE	Season	LMA	N_{area}
Artemisia ordosica	Water	Wet	-0.33	-0.06
		Dry	**-0.73**	**-0.77**
	Nitrogen	Wet	0.08	-0.11
		Dry	0.59	**0.73**
Salix psammophila	Water	Wet	0.06	**0.78**
		Dry	0.36	0.37
	Nitrogen	Wet	-0.55	0.62
		Dry	**0.77**	**0.66**