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Supplementary Material

Water uptake and redistribution during drought in a semiarid shrub species

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Table S1. Model selection for the relationship between treatment and time to plant predawn and midday water potentials (Ψ_{pd} , Ψ_m), stem isotopic composition (δD), soil water content (SWC) and deep soil water content (SWC_{deep})

The best predictive models showing the lowest AIC are given in bold. Model type: general linear mixed model. Corresponding figures: Figs. 1 and 3

| | | Ψ_{pd} (N=72) | | Ψ_m (N=48) | | δD (N=63) | | SWC (N=720) | | SWC _{deep} (N=400) |
|-------------------------|-----------|--------------------|-----------|-----------------|-----------|-------------------|-----------|-----------------|-----------|-----------------------------|
| Model | df | AIC | df | AIC | df | AIC | df | AIC | df | AIC |
| (Intercept) | 3 | 276.88 | 3 | 157.36 | 5 | 624.48 | 5 | -5667.67 | 5 | -4445.649 |
| Treatment | 4 | 264.15 | 4 | 147.34 | 6 | 602.97 | 6 | -5686.30 | 6 | -4446.014 |
| Time | 11 | 170.32 | 9 | 99.91 | 12 | 615.80 | 6 | -5711.28 | 6 | -4444.298 |
| Time + Treatment | 12 | 149.44 | 8 | 83.54 | 13 | 591.77 | 7 | -5719.93 | 7 | -4444.663 |
| Time \times Treatment | 20 | 49.45 | 14 | 31.86 | 20 | 473.64 | 8 | -5734.32 | 8 | -4442.671 |

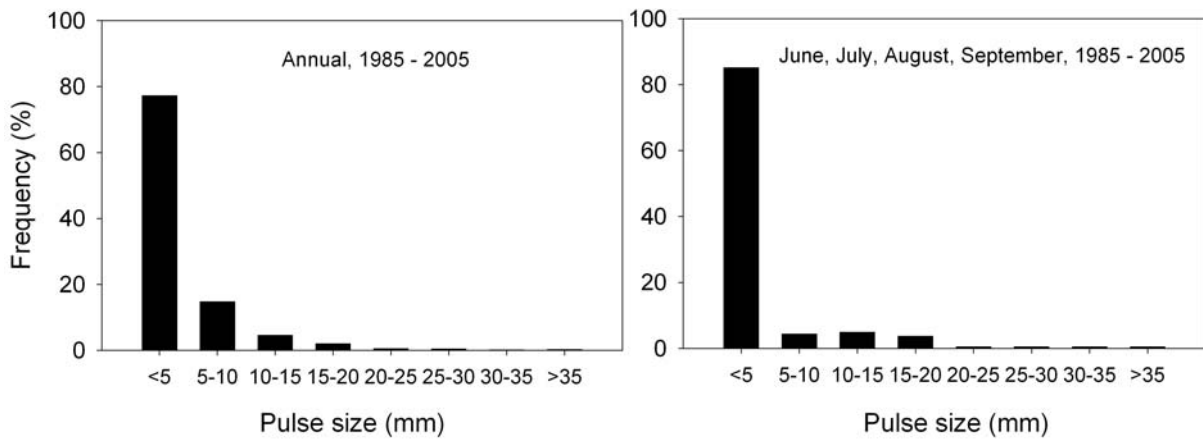


Fig. S1. Frequency of mean annual (left) and mean summer (right) rainfall for a 20-year period in Vernon (UT, USA, 40° 05' N, 112° 27' W, 1671.8 m elevation). Data were compiled from the Utah Climatic Center, located 30kms south of the study site. Source: <http://climate.usurf.usu.edu/index.php>.