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Diurnal dynamics of water transport, storage and hydraulic conductivity in pine trees under seasonal drought. iForest – Biogeosciences and Forestry – doi: 10.3832/ifor2046-009

Supplementary Material

Fig. S1 - The effect of hydrostatic pressure on specific hydraulic conductivity (K_s) of *Pinus halepensis* branches. *Error bars* represent the standard error of the mean (n = 9). The hydrostatic pressure was increased by raising the water reservoir height stepwise from 15 to 70 cm every 40 min. K_s increased from practically zero to 0.4 kg m^{-1} MPa^{-1} s^{-1} at pressure larger than 0.003 MPa. K_s measurements reported in Figs. 3-5 were performed at pressure of 0.007-0.020 MPa.

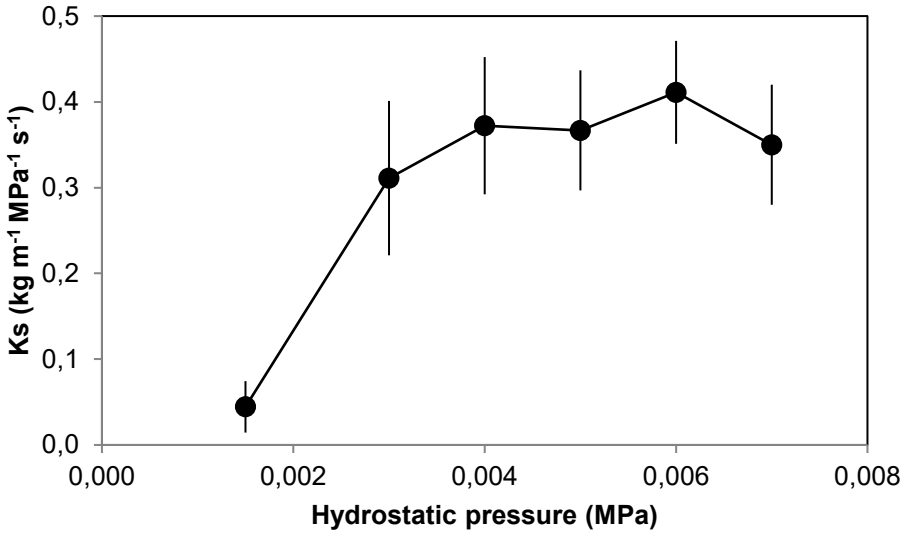

Fig. S2 - Xylem vulnerability curve for *Pinus halepensis* branches: percent loss of hydraulic conductivity (PLC) as function of branch water potential (WP). Measurements were performed in the bench drying method (Sperry & Tyree 1988) on branches sampled in December 2013 in Beit Dagan, 80 km from Yatir forest. The curve was adjusted with a sigmoid function using the equation: PLC = 100/[1 + exp (*S*/25 * (P – P_{50})], where P_{50} (-3.95 MPa) is the xylem WP inducing 50% loss of conductivity and *S* is the slope of the curve at the inflexion point (Pammenter & van der Willigen 1998). *Error bars* represent the standard error of the mean (*n* = 6).