



Figure S2. The PLC of stems repeatedly centrifuged four times at 0.5 MPa for 5 min or once for 20 min and then flushed to remove embolism for three long-vesselled (*Quercus wislizeni*, *Rhus ovata*, *Fraxinus dipetala*) and three short-vesselled species (*Heteromeles arbutifolia*, *Ceanothus*

leucodermis, *Ribes malvaceum*). Points are means with SE ($n = 3$, except *R. ovata* where $n = 6$). Across the six chaparral shrub species, there was a consistent increase in PLC with each additional centrifugation that averaged 22% from after the first to the fourth centrifugation (centrifugation: $F_{3,57} = 49.73$, $P < 0.001$). The increase in PLC with centrifugation did not differ between the three long- and three short-vesselled species (centrifugation \times vessel length: $F_{3,57} = 1.61$, $P = 0.183$). The treatment included to test for the effect of centrifugation time (a single 20 min centrifugation) did not induce significantly different PLC than the initial 5 min centrifugation (time: $F_{1,35} = 0.16$, $P = 0.696$), suggesting the additional time at negative xylem pressure during repeated centrifugation was not the cause of the PLC increases. The K_s measured for stems after they were re-flushed following centrifugation treatments did not differ from their initial K_s for repeated or single centrifugation treatments (contrast of initial to final K_s : $F_{1,40} = 2.96$, $P = 0.093$; $F_{1,40} = 2.05$, $P = 0.160$, respectively).