**Table S1** Models describing the scaling of basal (*Vmm*0) and apical (*Vmm*N-1) vessel density against stem length and habit, all variables log­­10 transformed.

|  |  |  |
| --- | --- | --- |
|  | ***Vmm*0~SL+Habit** | ***Vmm*N-1 ~SL+Habit** |
| **R2adj** | 0.40PGLS: 0.44 | 0.15PGLS: 0.16 |
| **Model fit** | F(2, 208)= 70.6, P<0.001 | F(2, 114)= 11.2, P<0.001 |
| **Equality of slopes**  | P= 0.577 | P= 0.653 |
| **Equality of intercepts**  | P<0.005 | P<0.01 |
| **Slope** | -0.73 (-0.86, -0.61)PGLS: -0.79 | -0.21 (-0.34, -0.07)PGLS: -0.21 |
| **Non self- supporting intercept** | 2.25 (2.09, 2.42)PGLS: 2.08 | 2.54 (2.37, 2.71)PGLS: 2.38 |
| **Self- supporting intercept** | 2.05 (1.88, 2.22)PGLS: 1.93 | 2.74 (2.56, 2.93)PGLS: 2.58 |
| **K of residuals** | 0.357 | 0.435 |
| **Phylogenetic signal test** | P<0.001 | P<0.01 |