



The Xylem Functional Traits Database



Prof. Dr. Steven Jansen

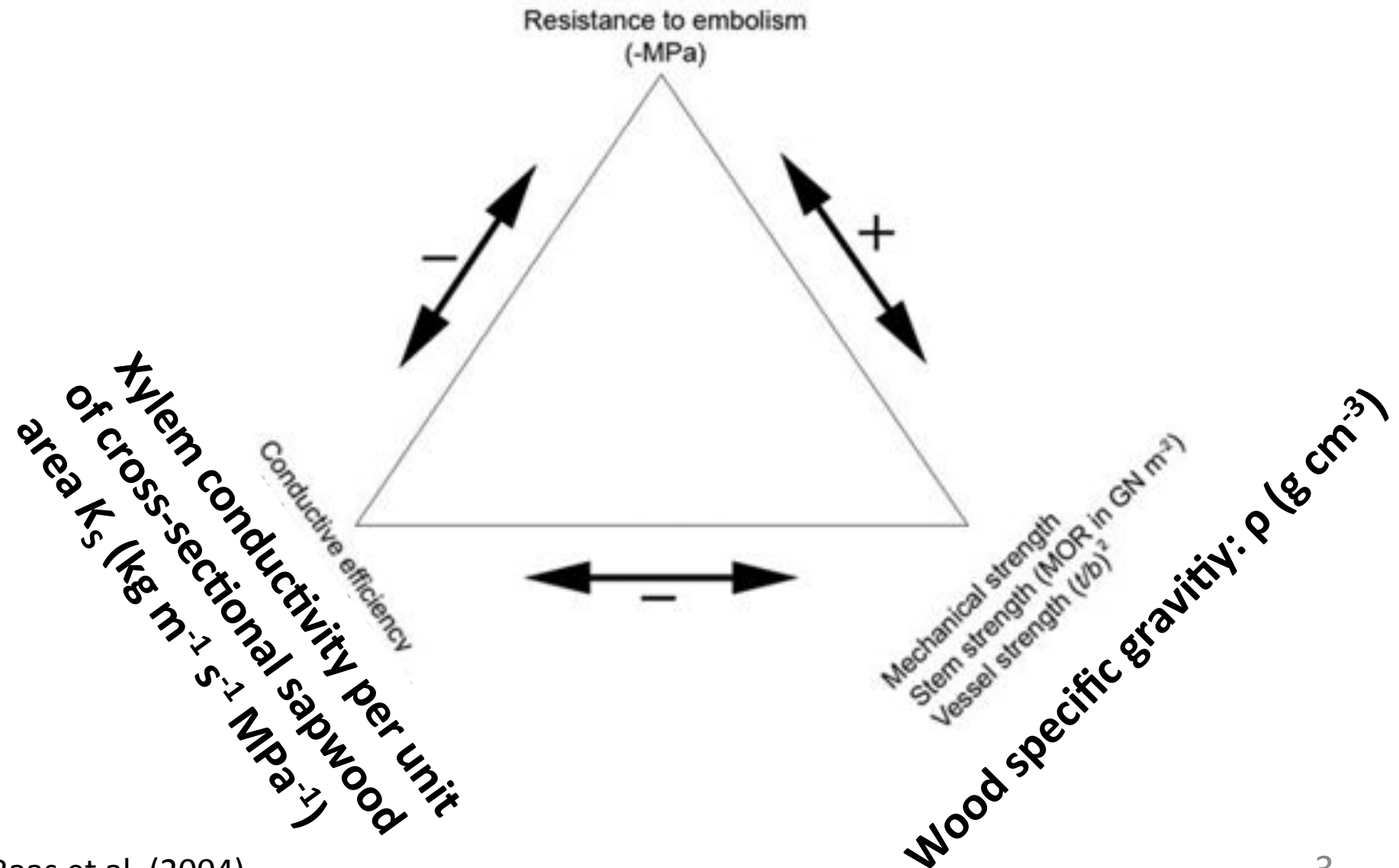
Ulm University

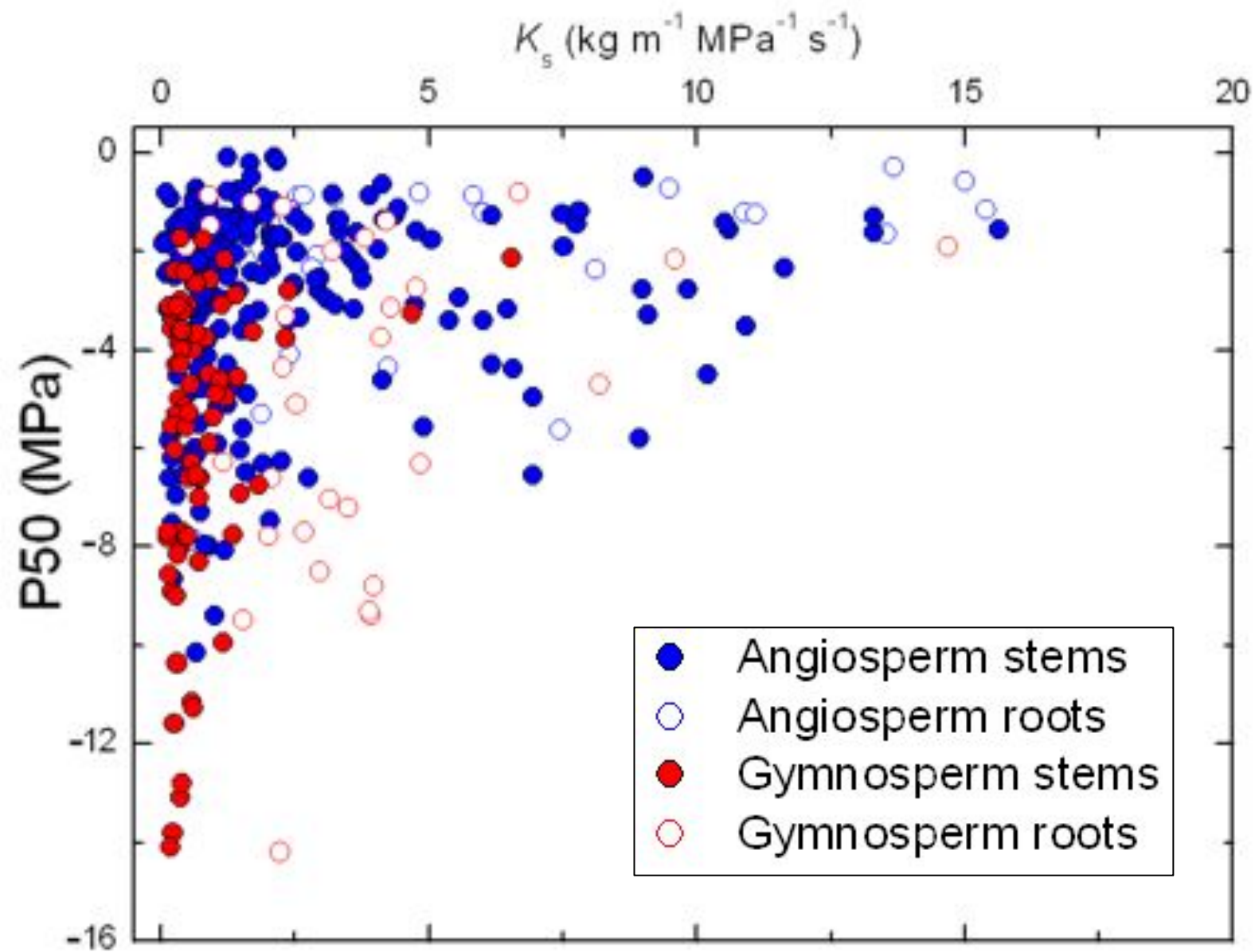
Institute for Systematic Botany and Ecology

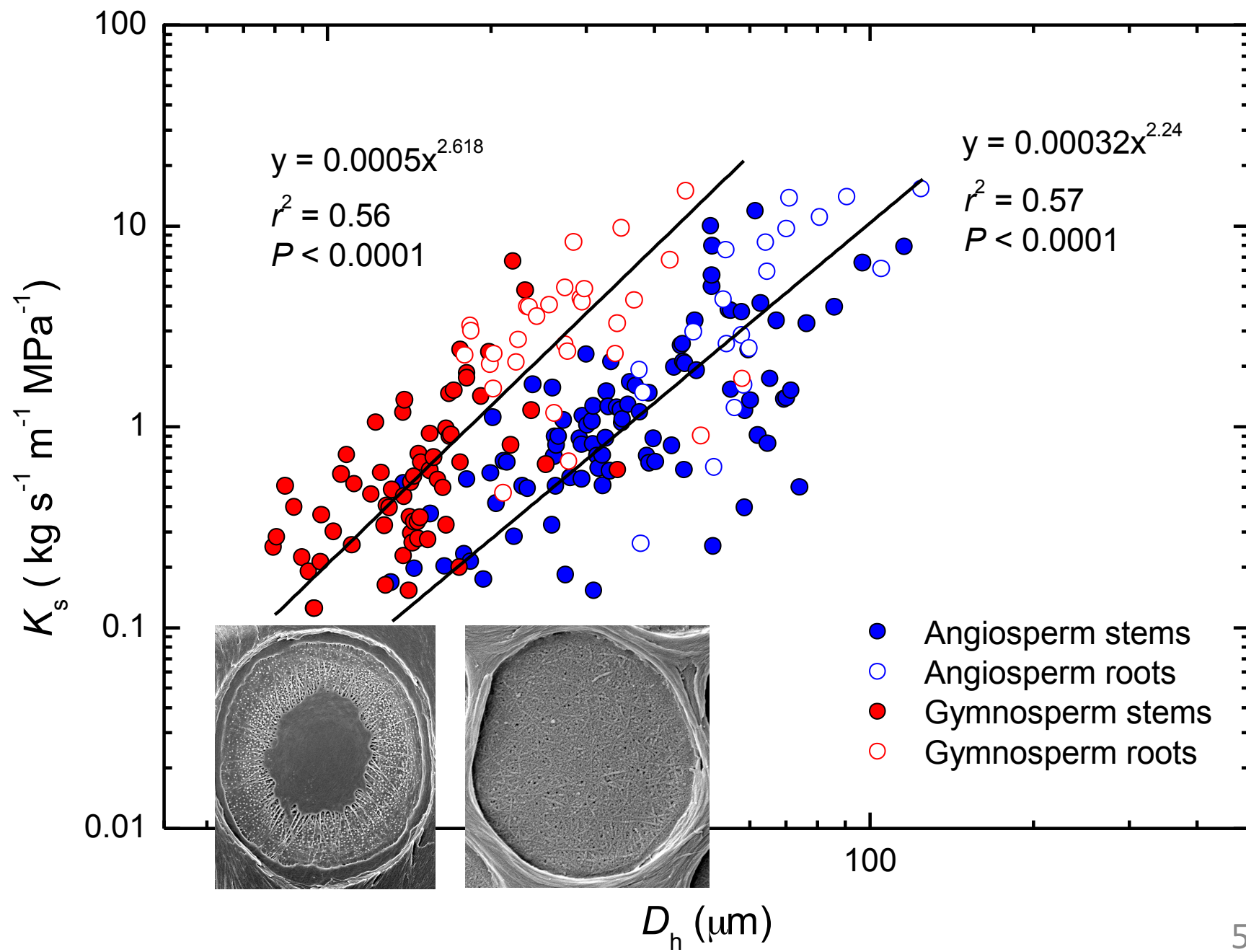
XFT Database

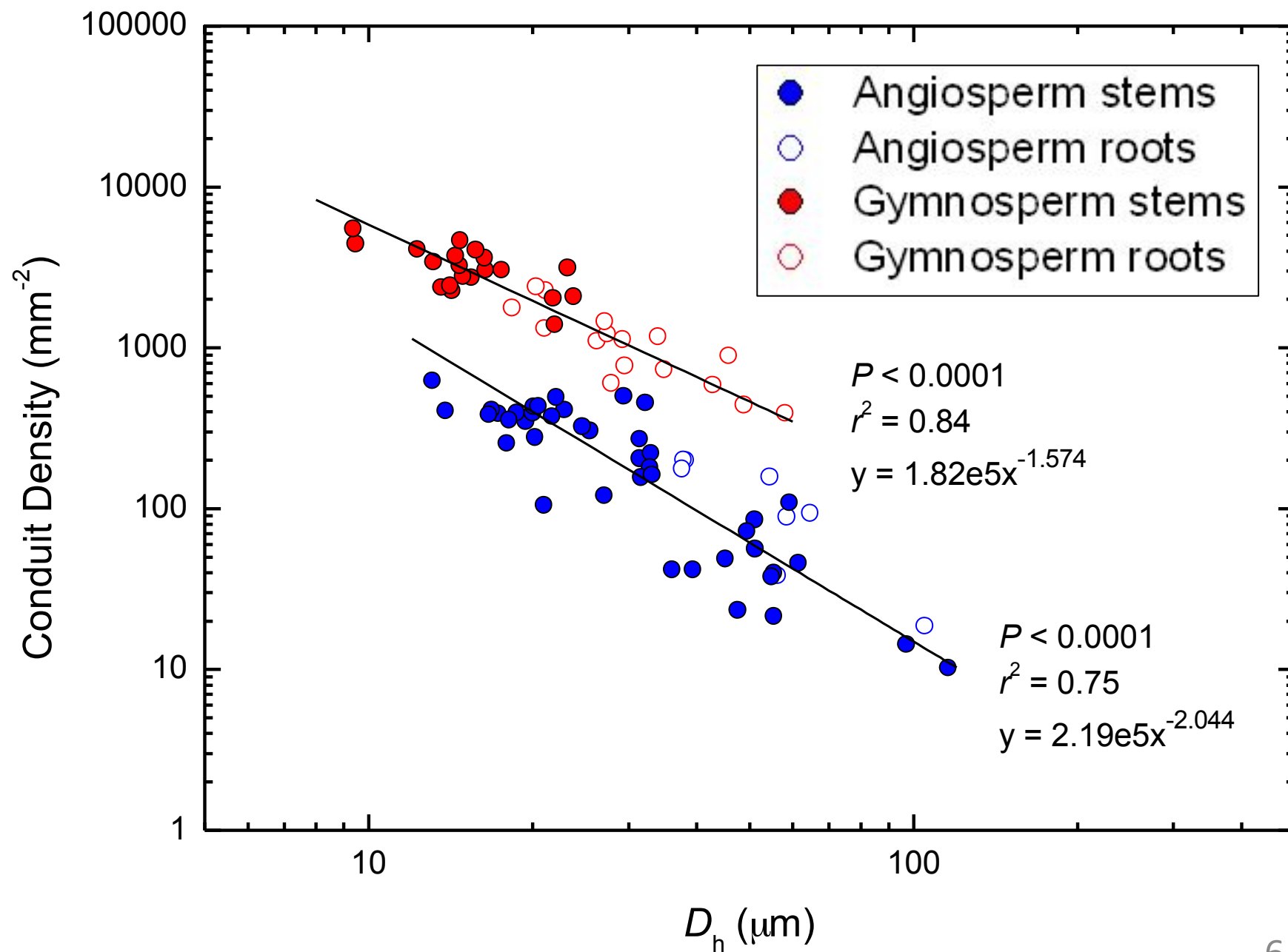
- **Taxonomy:** taxon scrubbing
- **Plant details:** organ, developmental stage, growth form, height
- **Hydraulics:** P50, Ks, Psimin, HV, sapwood capacitance
- **Anatomy:** conduit diameter, length, conduit density, ground tissue, vessel grouping, pits
- **Mechanical properties:** ρ , MOR, MOE, EI
- **Leaf data:** Gs, SLA, stomata, Amax, phenology
- **Location and climate:** MAP, MAT, PET, AI

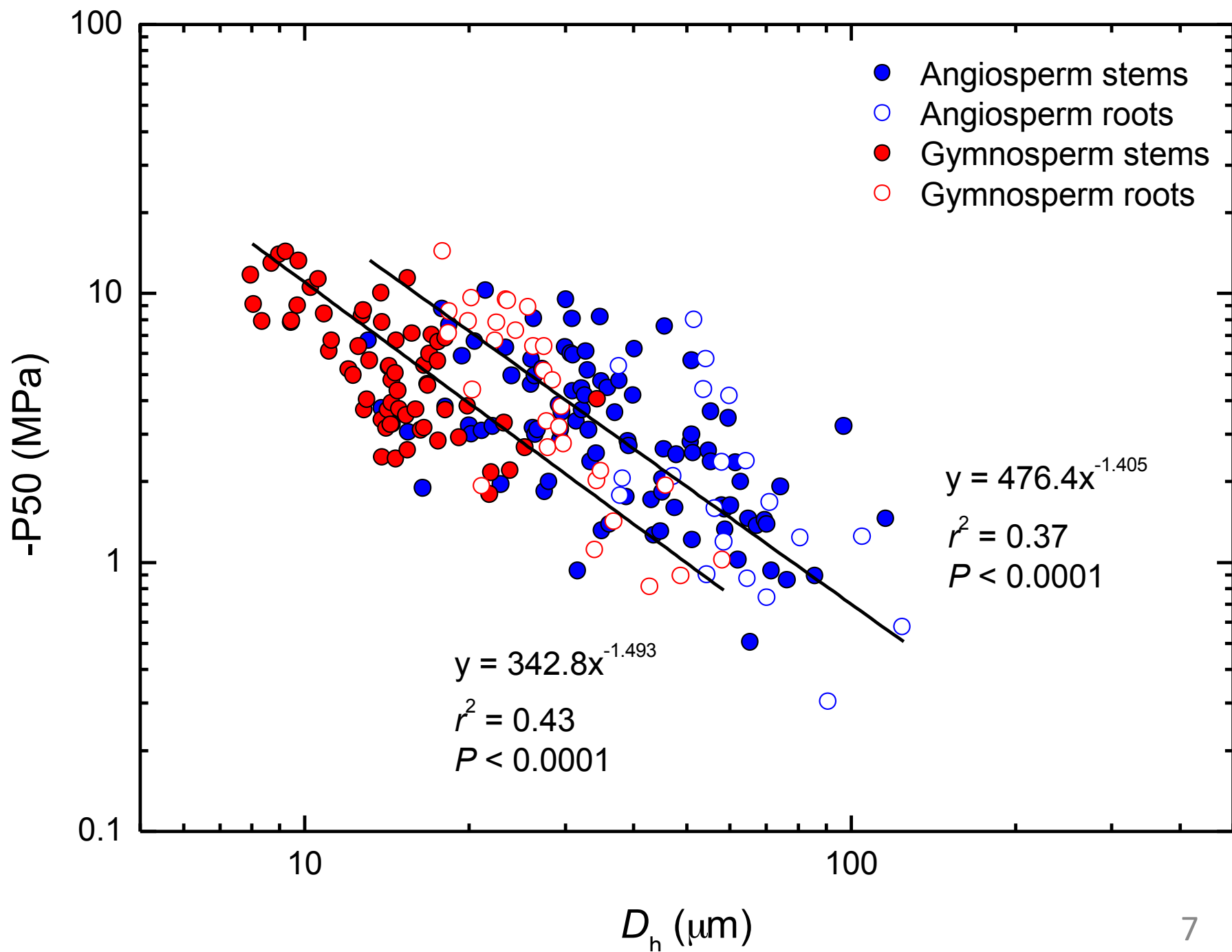
Vulnerability curves: P_{50} (MPa)

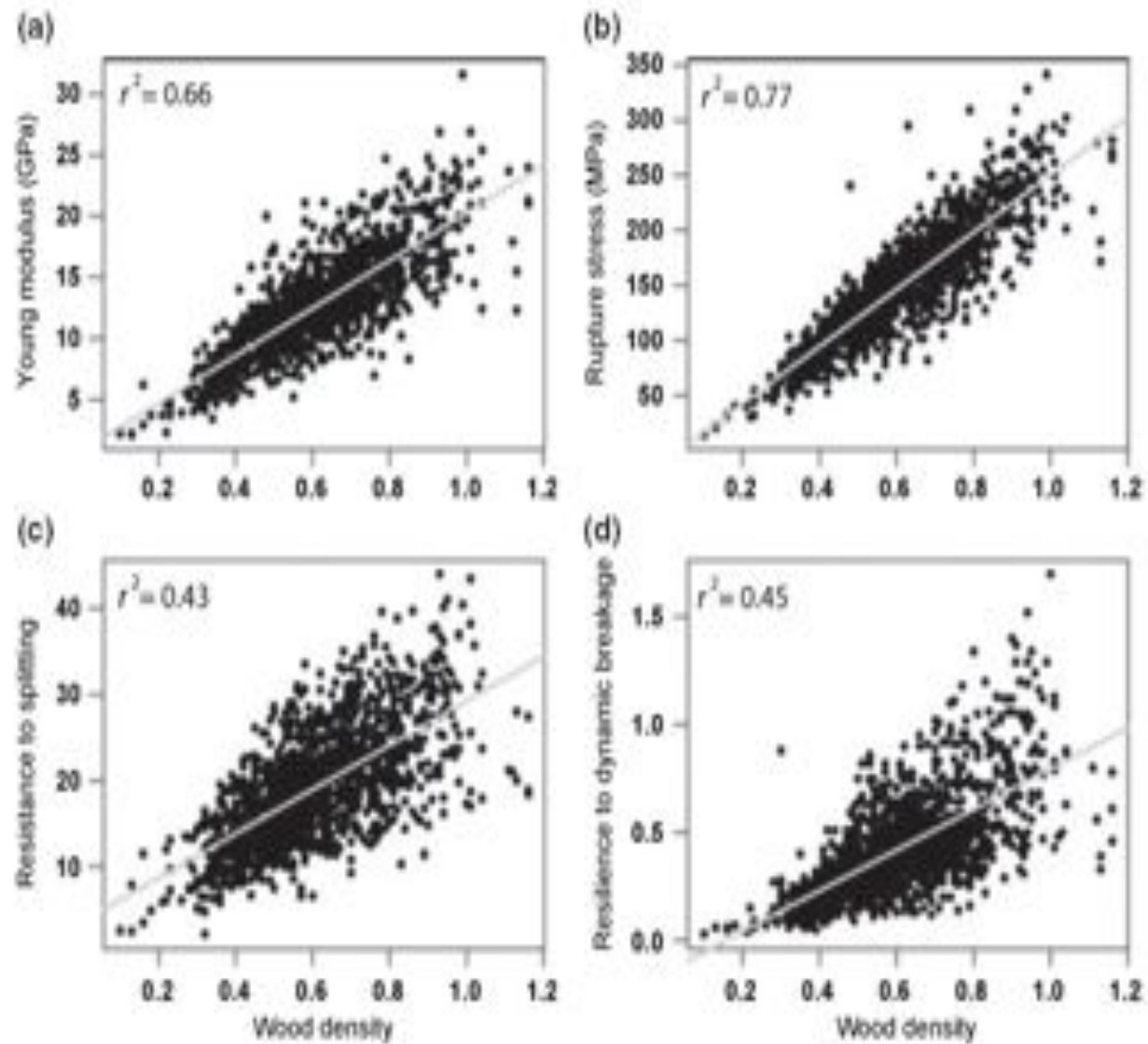


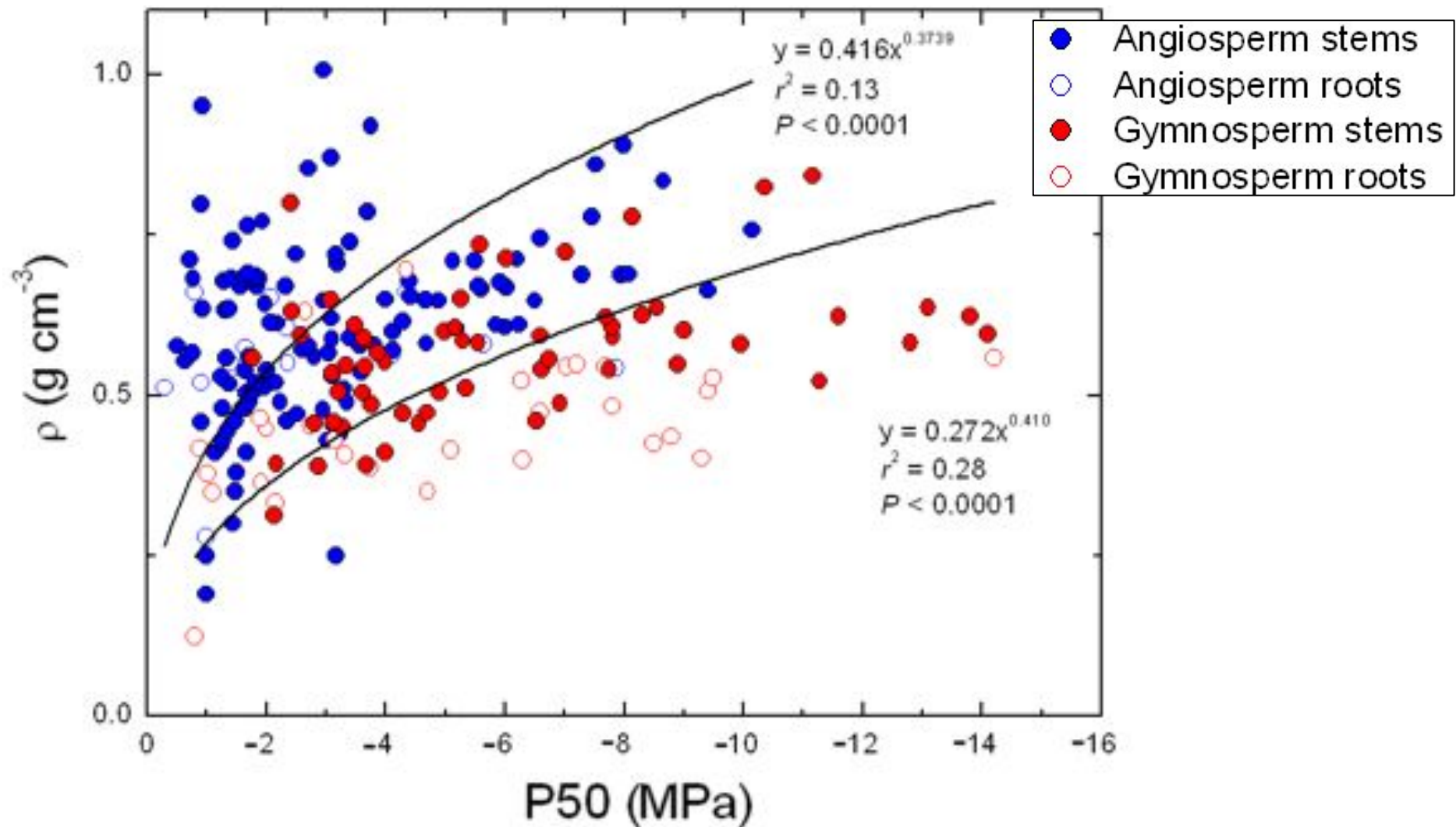




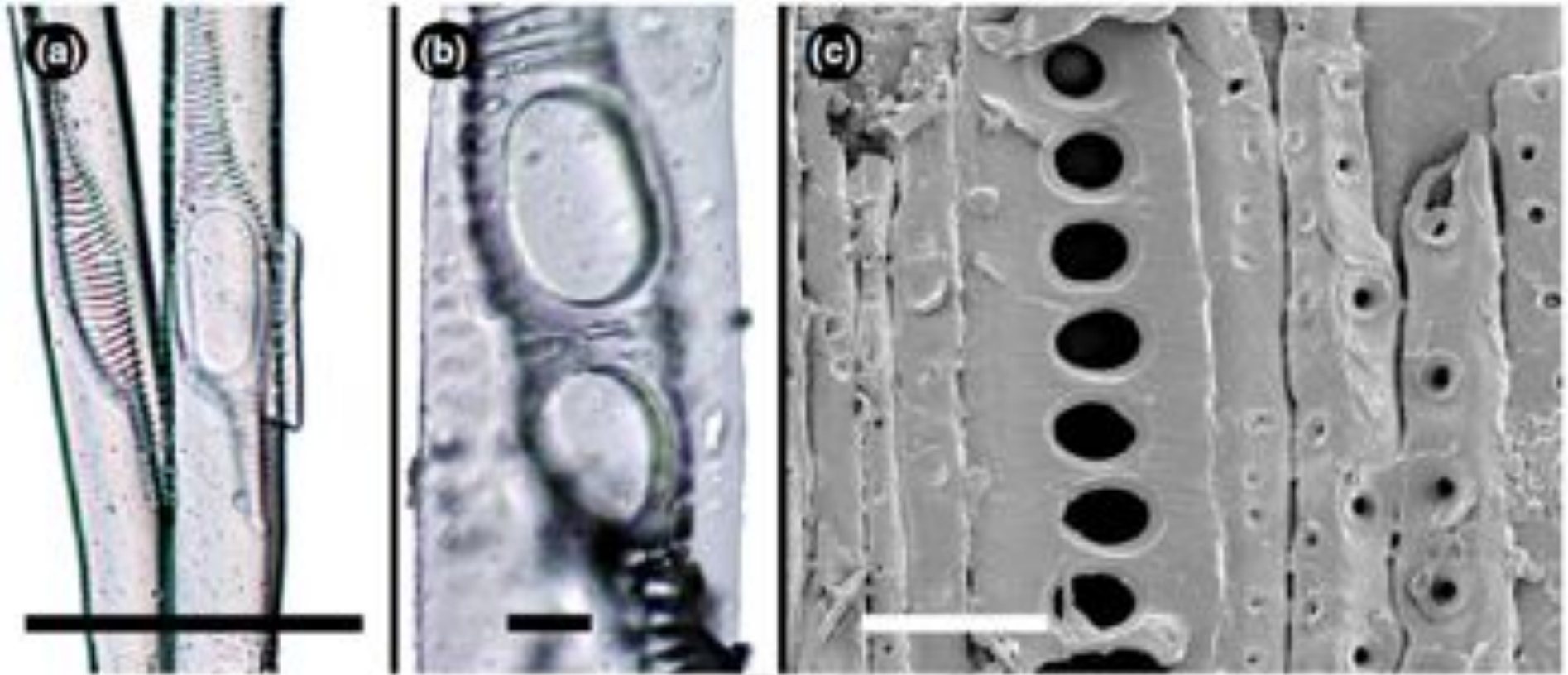




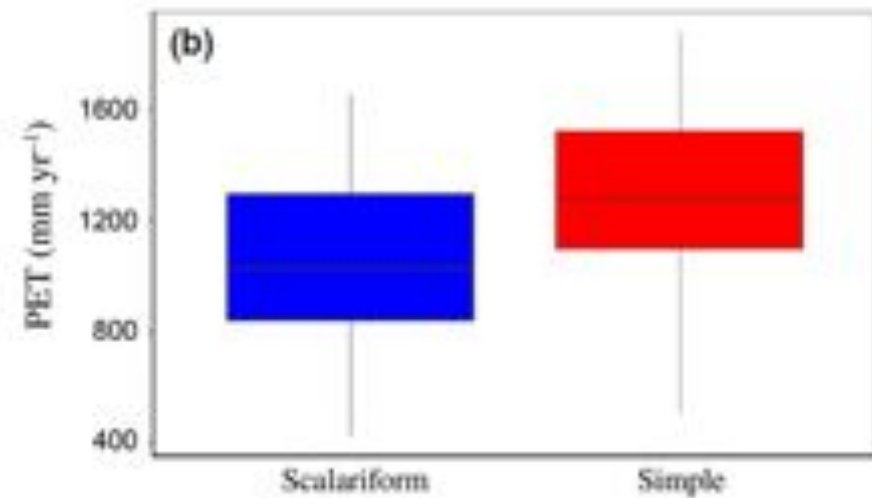
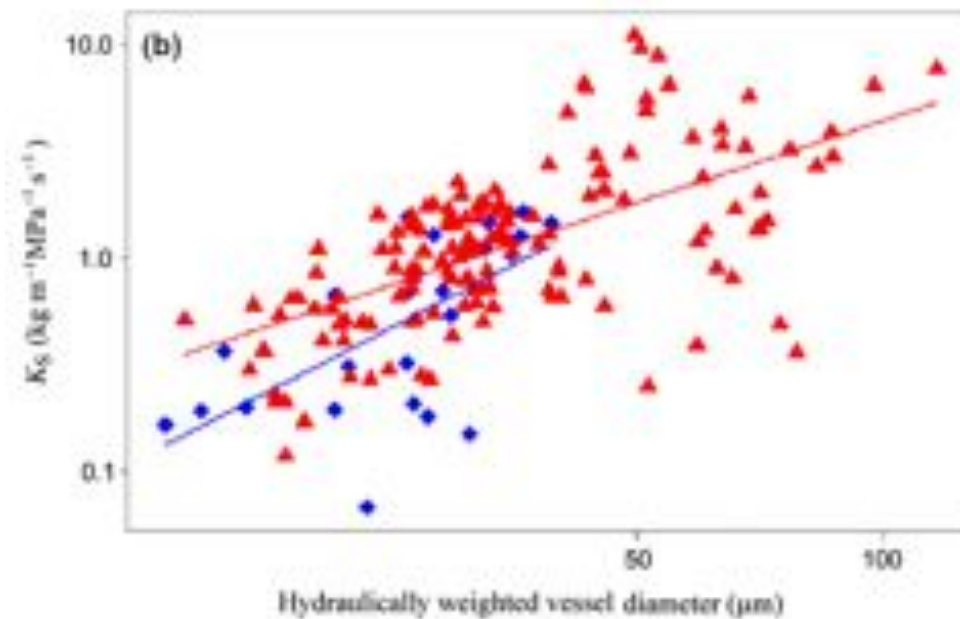
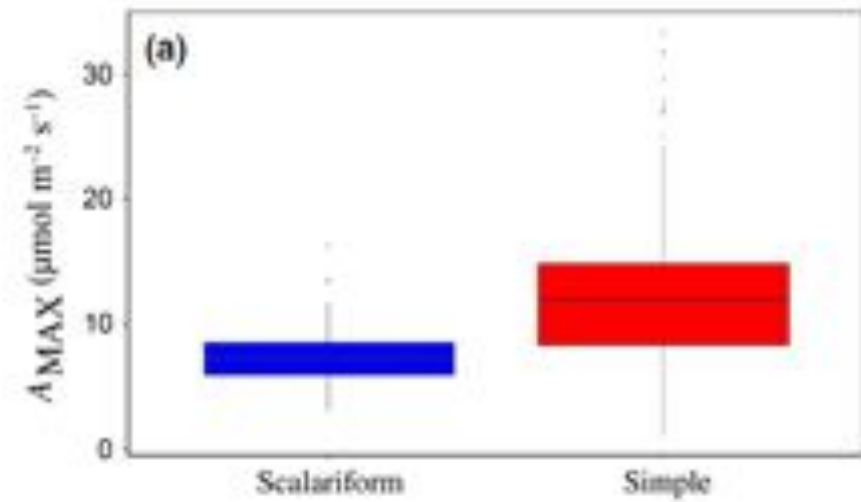
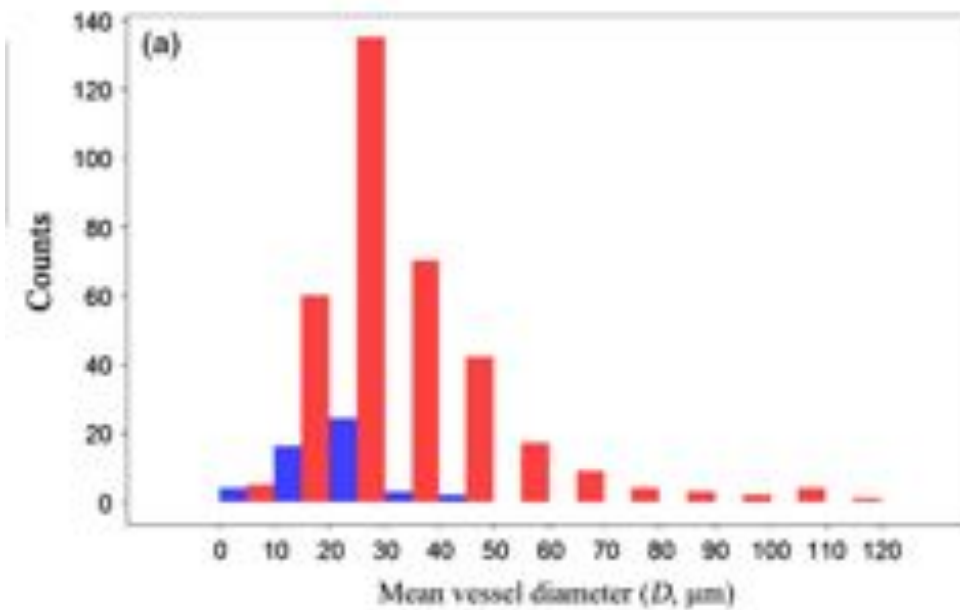


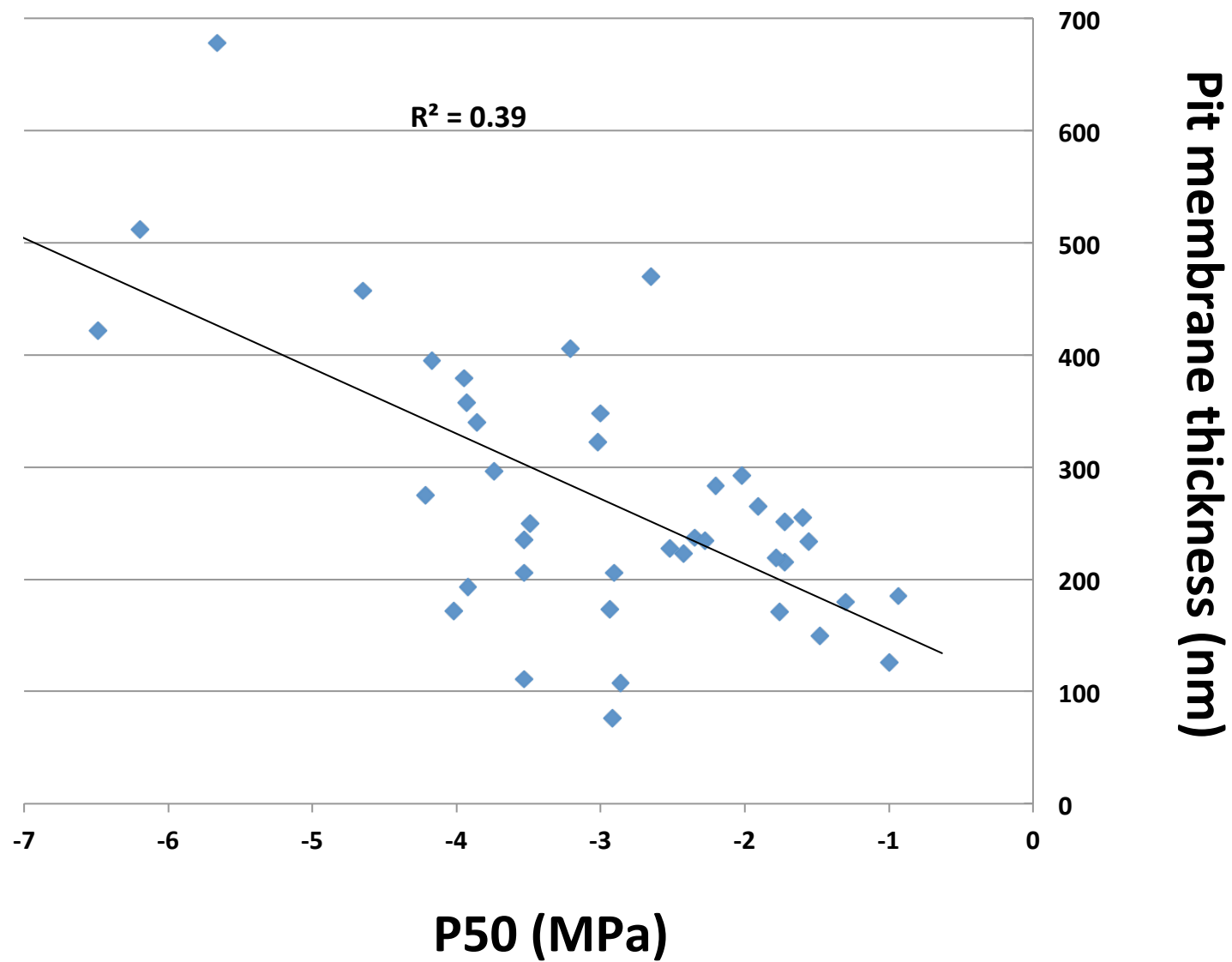


Drought-resistant xylem shows greater wood density in both conifers and angiosperms. Conifers achieve a given P50 with less biomass (lower density) than angiosperms.



Jansen & Nardini (2014, New Phytol)





Data from Lens et al. (2011; unpublished data), Scholz et al. (2013), Tixier et al. (in press), Karimi et al. (in prep.)