



Figure S1: Traces of the age of the crown angiosperm node across replicate analyses (burnin phase only) for Beaulieu *et al.* (2015) (top) and Magallón *et al.* (2015) (bottom) data sets. Top: prior (lognormal priors), orange ( $n = 2$ ); posterior (lognormal priors), blue ( $n = 3$ ); prior (exponential priors), red ( $n = 2$ ); posterior (exponential priors), green ( $n = 3$ ). Bottom: prior (no angiosperm constraint), orange ( $n = 4$ ); posterior (no angiosperm constraint), blue ( $n = 4$ ); prior (all constraints), green ( $n = 4$ ); posterior (all constraints), red ( $n = 3$ ; note that this is mostly obscured by the green prior trace). All analyses were initialized with the age of crown angiosperms set at  $\sim 140$  Ma.