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Appendix S4. Comparison of rate-through-time plots for each of the 17 rosid orders (a-q). Each panel coplots results from the 9k- (dashed line), 20k- (solid line), and 100k-tip trees (dotted line). For the orders Cucurbitales, Fabales, and Vitales, speciation rates had much higher scaling for the 100k-tip tree; in these cases, thumbnail rate-through-time plots are provided for the 9k- and 20k-tip trees to show further details. These curves show that (1) tree-wide speciation rates were estimated differently based on different sampling scales; (2) sparse sampling tends to generate flattened curves and erase recent diversification signals (9k-tip tree vs. 20k-tip tree); (3) the 100k-tip tree tended to produce lower speciation rates at present (0 Myr); and (4) the 100k-tip tree, where missing taxa are taxonomically assigned to the tree backbone, pushes back the apparent timing of diversification, causing detection of spurious early bursts of evolution.



