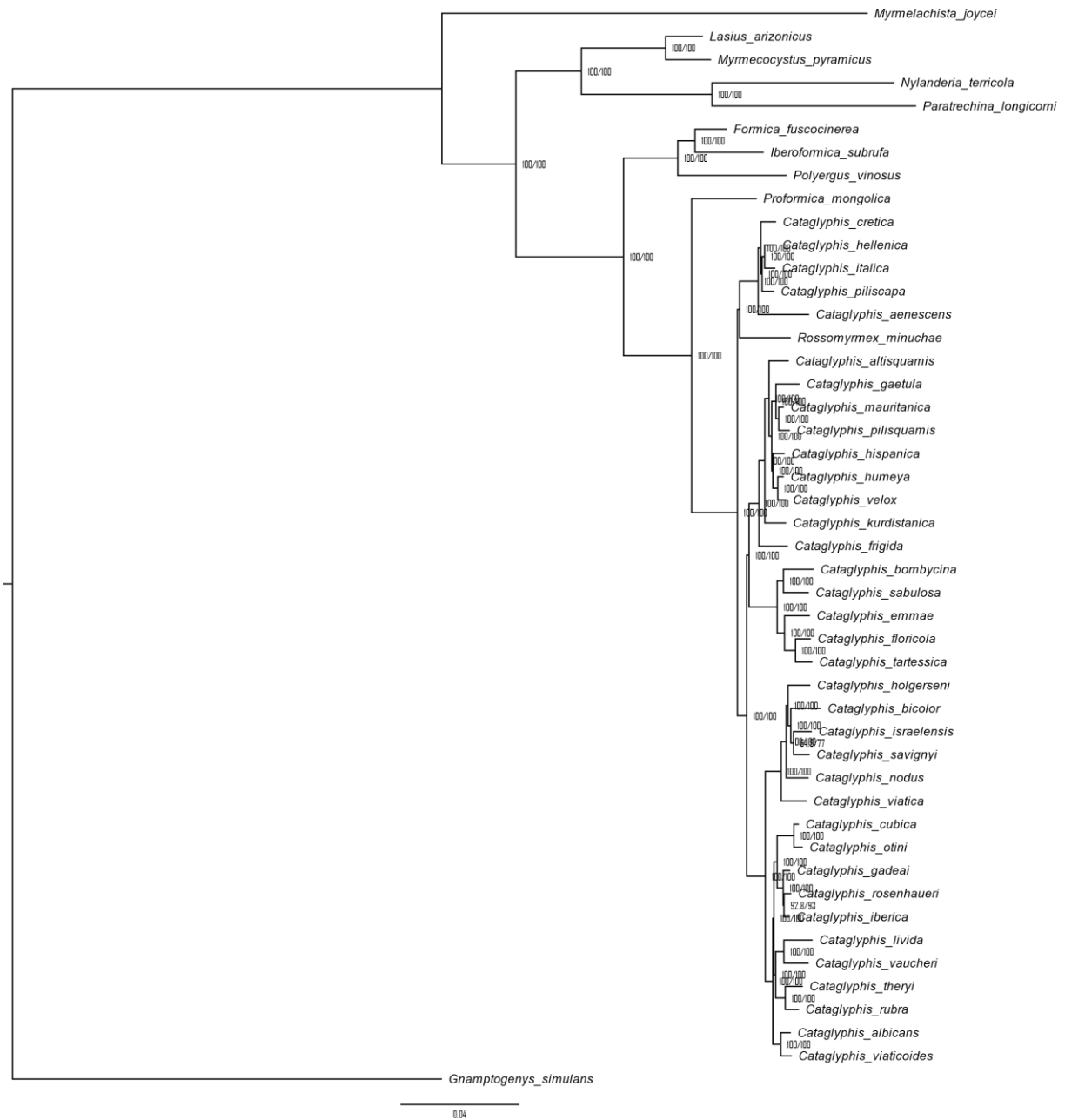


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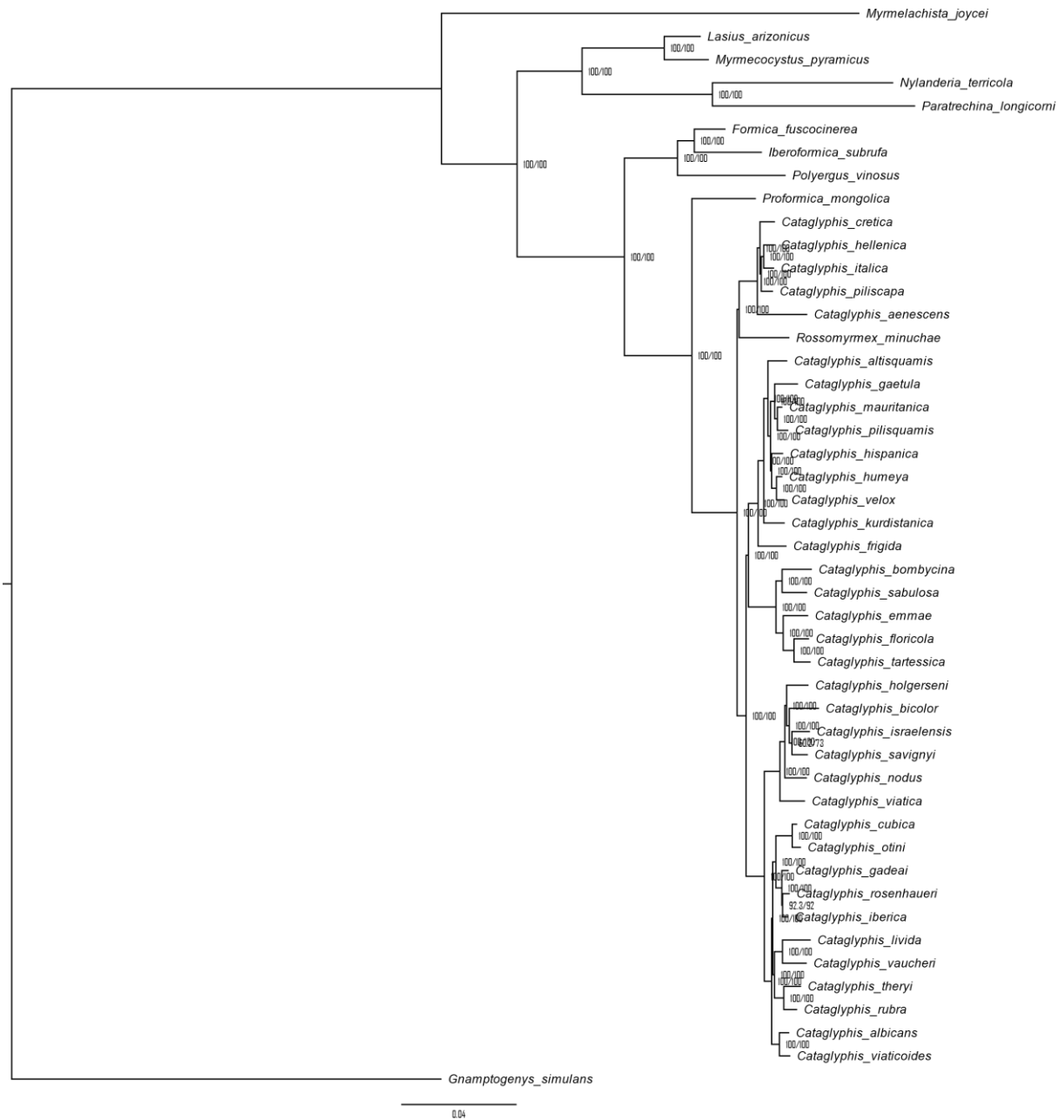
Supplemental information

Ecological diversification preceded geographical expansion during the evolutionary radiation of *Cataglyphis* desert ants

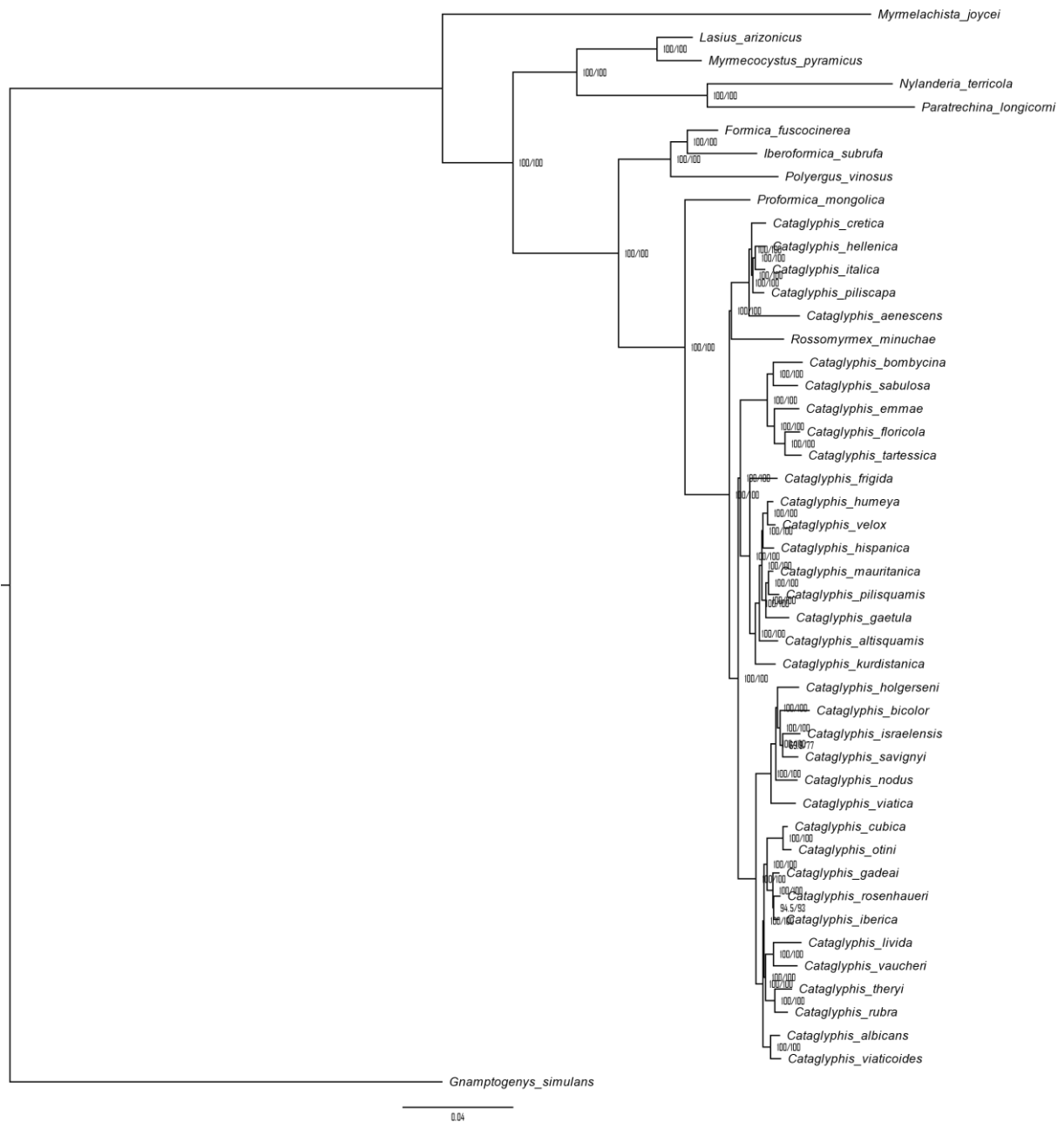
Nathan Lecoq de Pletincx, Xim Cerdà, Kadri Kiran, Celal Karaman, Ahmed Taheri, and Serge Aron



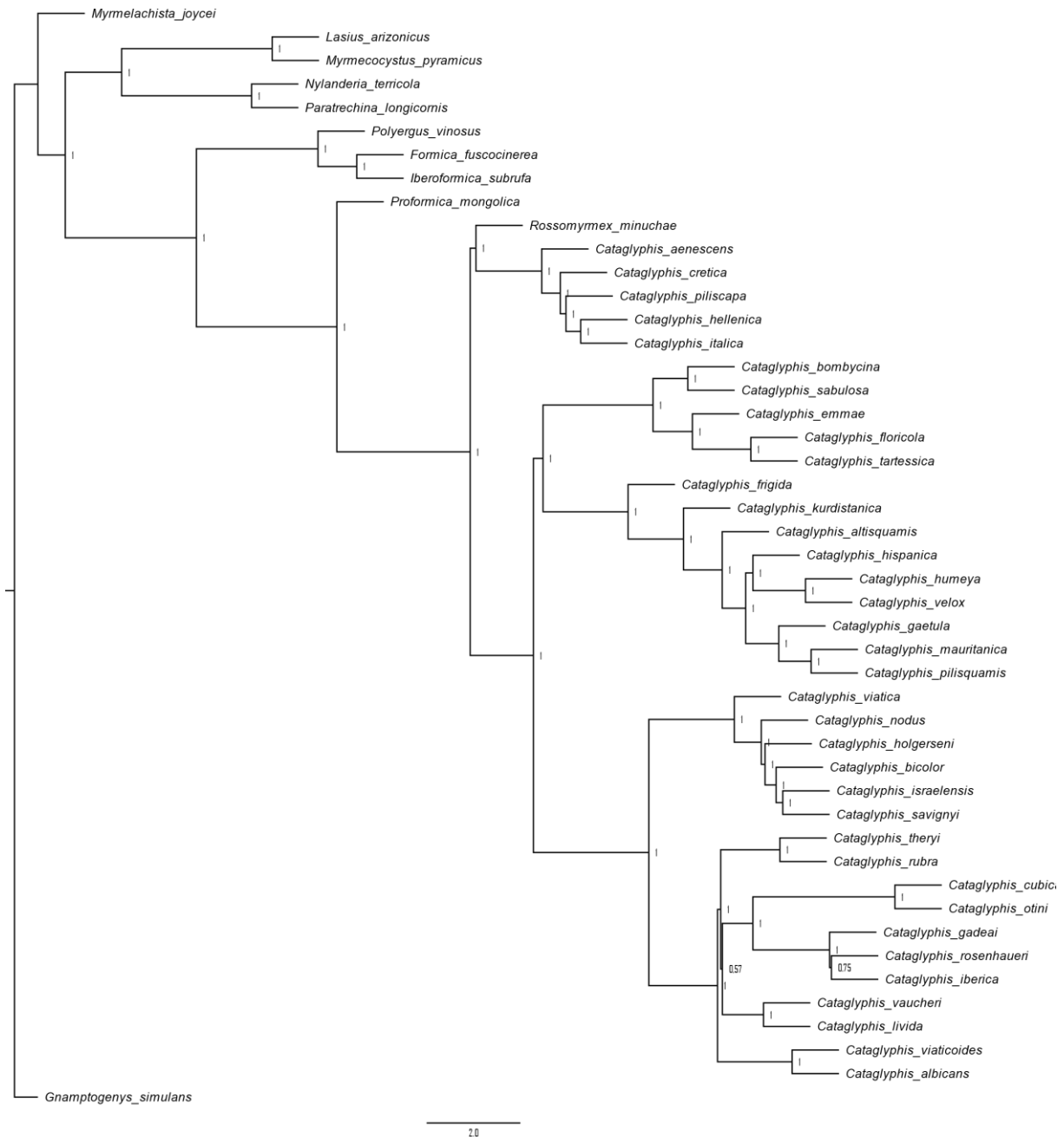
Supplementary Fig. 1. Phylogenetic tree inferred using IQ-TREE, the 75% taxon-filtered locus set, and no partitioning, related to STAR Methods.
Support values are SH-aLRT/UFB.



Supplementary Fig. 2. Phylogenetic tree inferred using IQ-TREE, the 75% taxon-filtered locus set, and a by locus partitioning scheme, related to STAR Methods.
Support values are SH-aLRT/UFB.

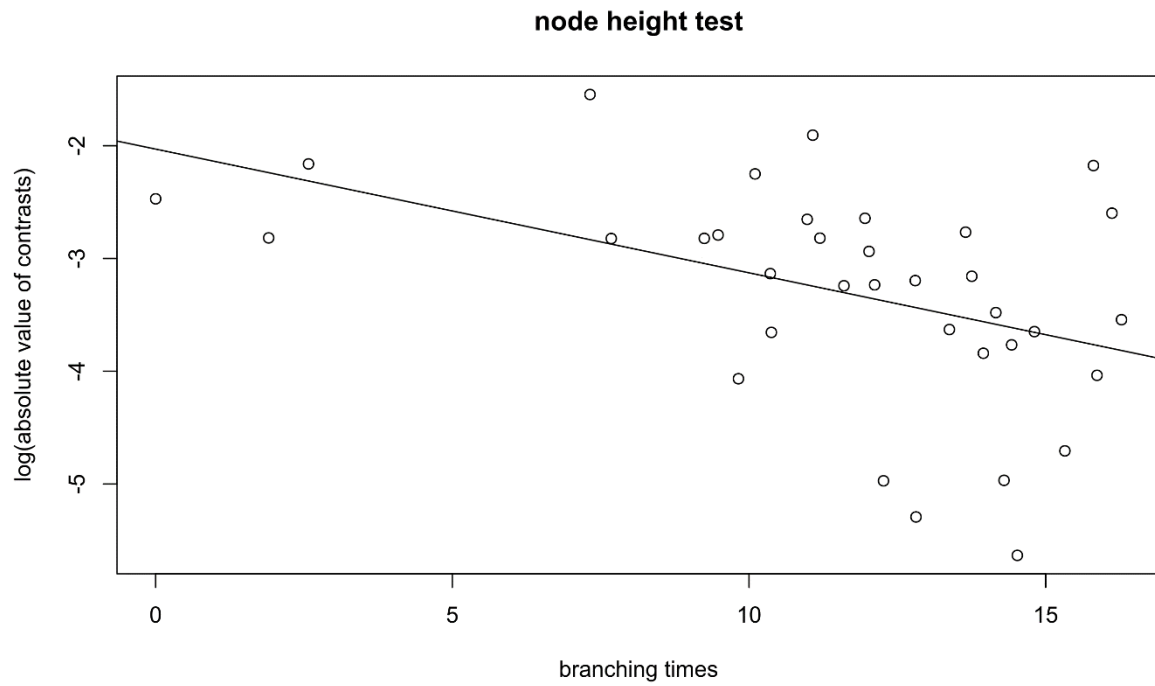


Supplementary Fig. 3. Phylogenetic tree inferred using IQ-TREE, the 75% taxon-filtered locus set, and the SWSC-EN partitioning scheme, related to STAR Methods.
Support values are SH-aLRT/UFB.



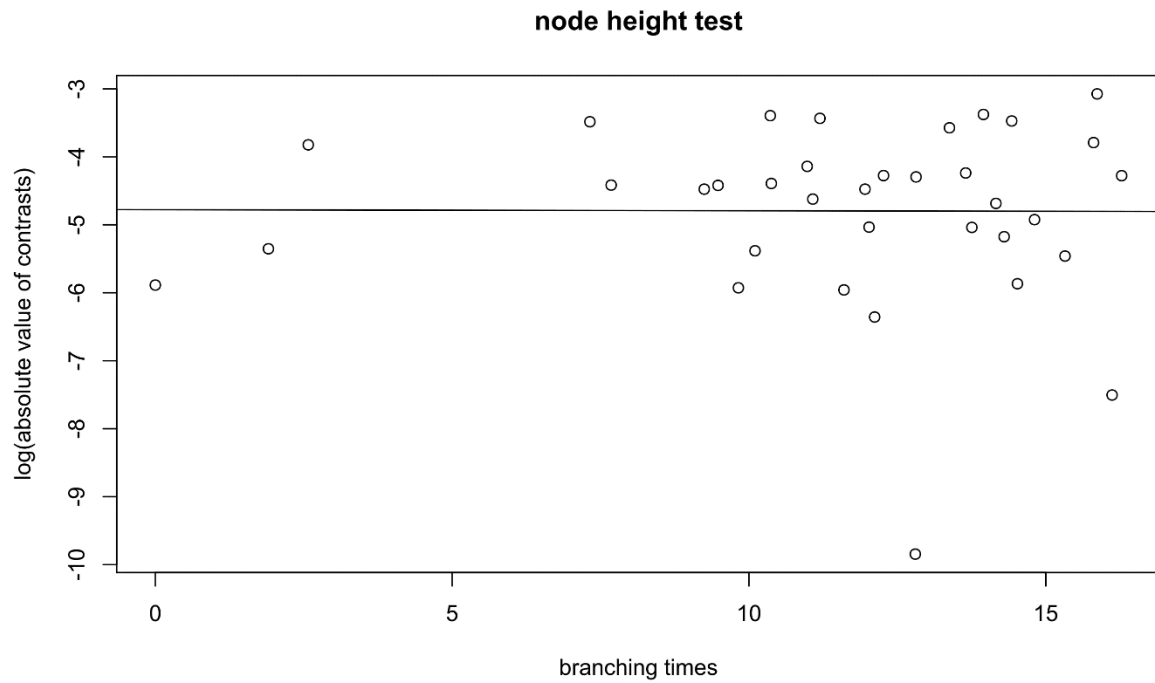
Supplementary Fig. 4. Species tree inferred using ASTRAL and the 75% taxon-filtered locus set, related to STAR Methods.

Support values are local posterior probabilities.

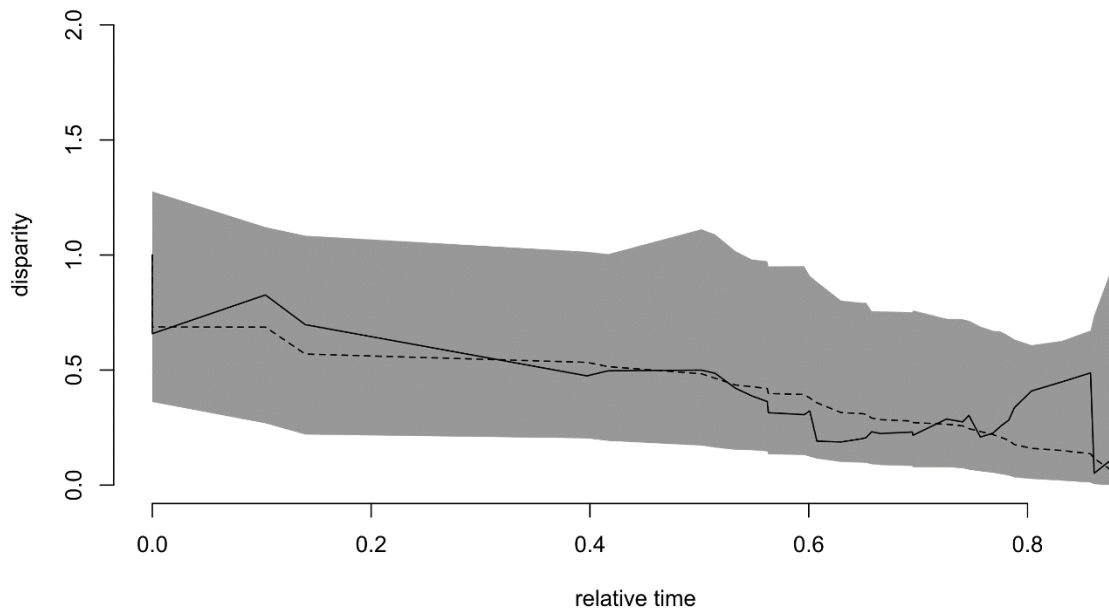


Supplementary Fig. 6. Node height test for mean worker head width in *Cataglyphis* ants, related to Figure 2b.

The evolution of worker head width significantly slowed with time ($df = 33$, $t = -3.053$, $p = 0.004$).



Supplementary Fig. 7. Node height test for variation in worker head width in *Cataglyphis* ants, related to STAR Methods.
Evolutionary rate of variation in worker head width remained stable through time (df = 33, $t = -0.026$, $p = 0.98$).



Supplementary Fig. 8. Evolution of disparity in worker head with variation in *Cataglyphis* ants, related to STAR Methods.

The dashed line and the grey area represent, respectively, the evolution of worker head with variation disparity and the 95% confidence interval for evolution under the Brownian Motion model (null model). The black line represents disparity in worker size variation observed in *Cataglyphis*, which does not differ from expectations under the null model (Rank envelope test; $p = 0.6431$; p -interval = 0.6428 – 0.6436).