

Online Material

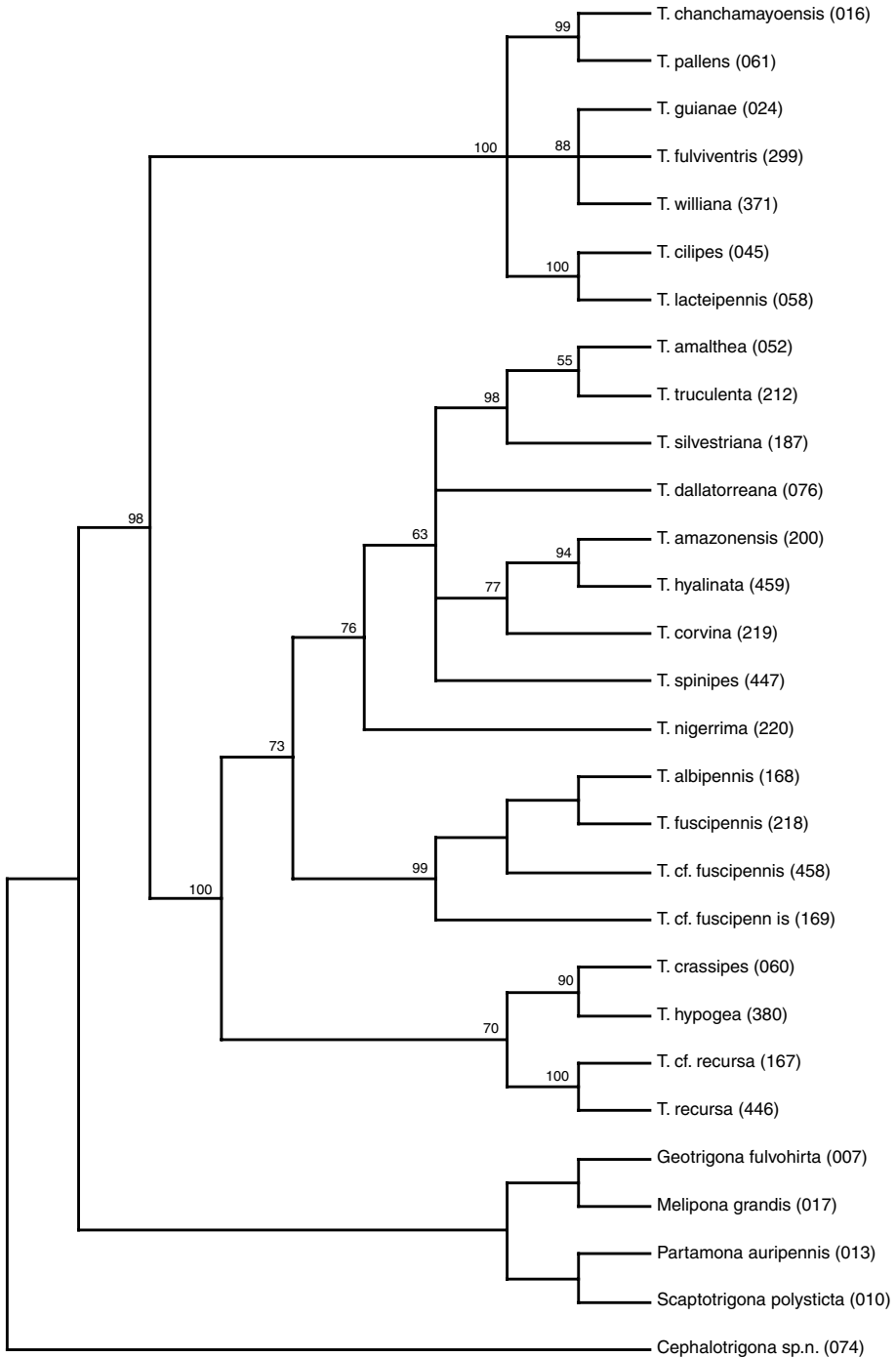


Figure 1. Phylogeny of *Trigona* (strict consensus of 9 trees) estimated from Maximum Parsimony analysis of combined sequence data from five gene fragments (16S, opsin, EF-1 α , ArgK, 28S). Tree length (TL) = 973, consistency index (CI) = 0.57, retention index (RI) = 0.61. Values above the branches are bootstrap values ≥ 50 .

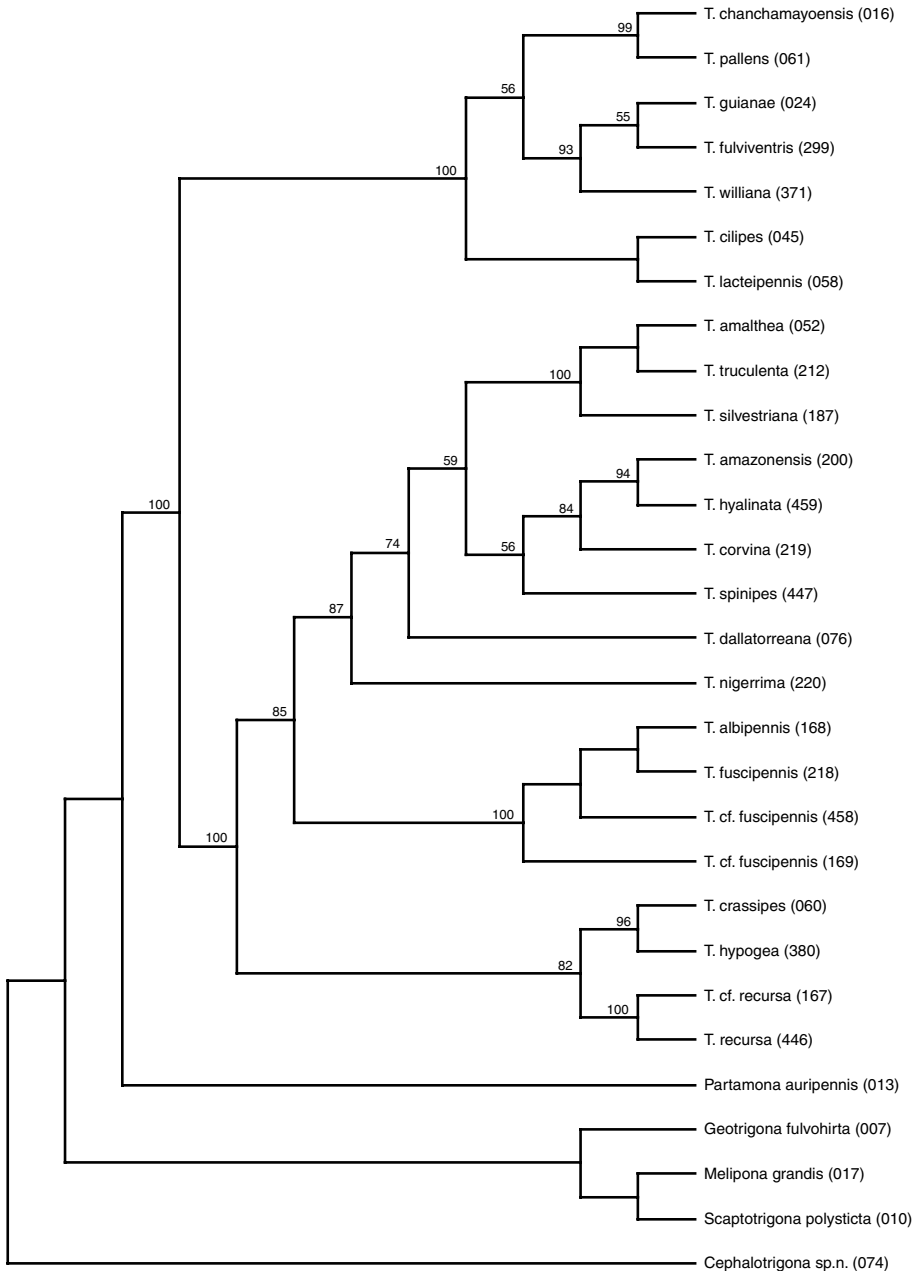


Figure 2. Phylogeny of *Trigona* estimated from Maximum Likelihood analysis of combined sequence data from five gene fragments (16S, opsin, EF-1 α , ArgK, 28S). $-\ln$ likelihood = 10 099.21316. Values above the branches are bootstrap values.

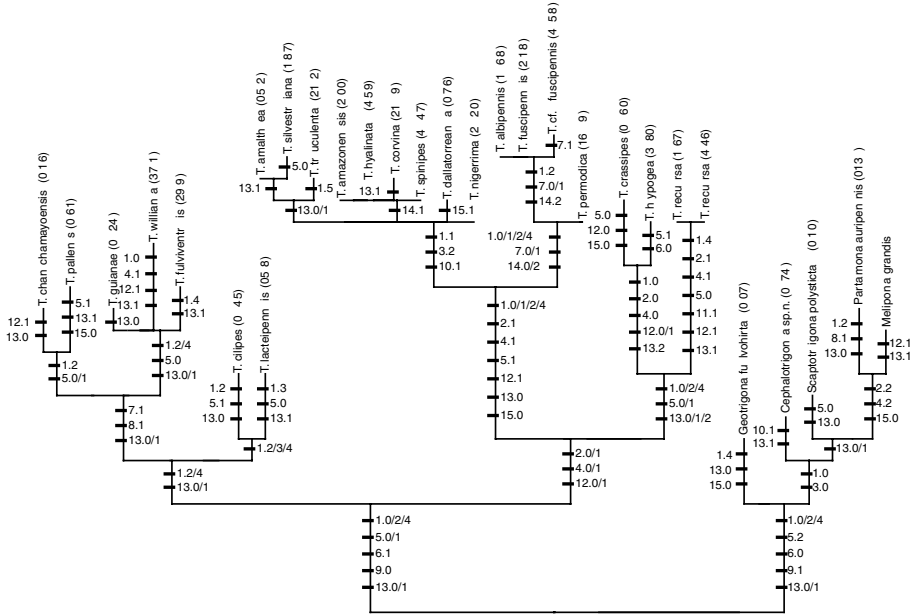


Figure 3. Optimization of all character changes onto the Bayesian phylogeny of *Trigona*.

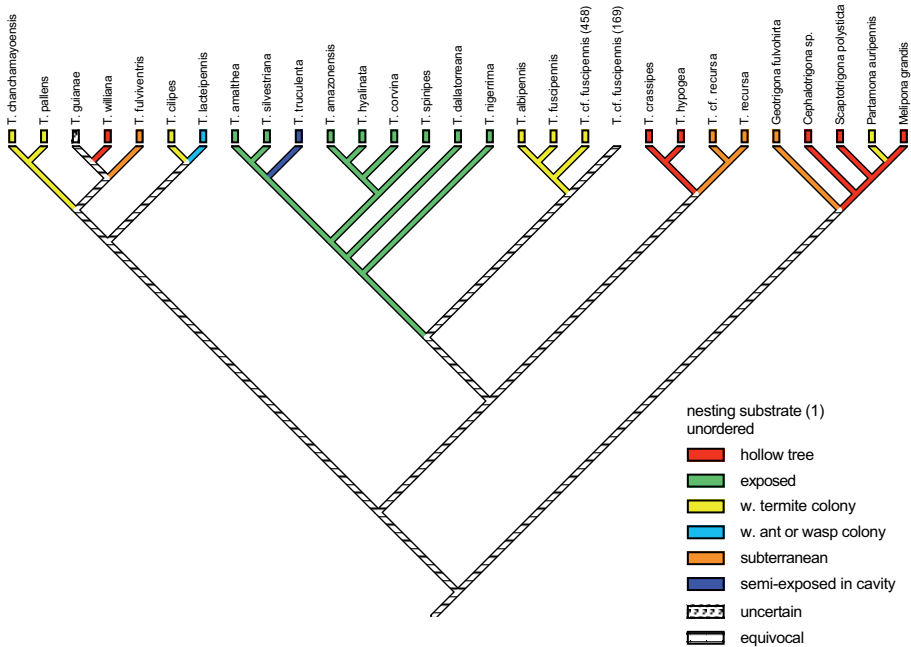


Figure 4. Optimization mapping of nest architectural and behavioral traits on the *Trigona* s.s. phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona* s.s. clade.

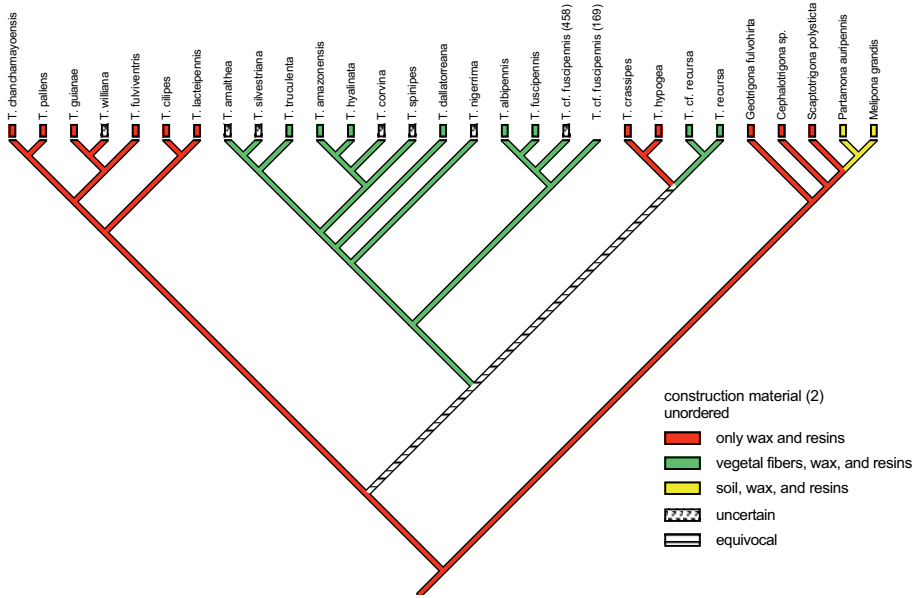


Figure 5. Optimization mapping of nest architectural and behavioral traits on the *Trigona* s.s. phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona* s.s. clade.

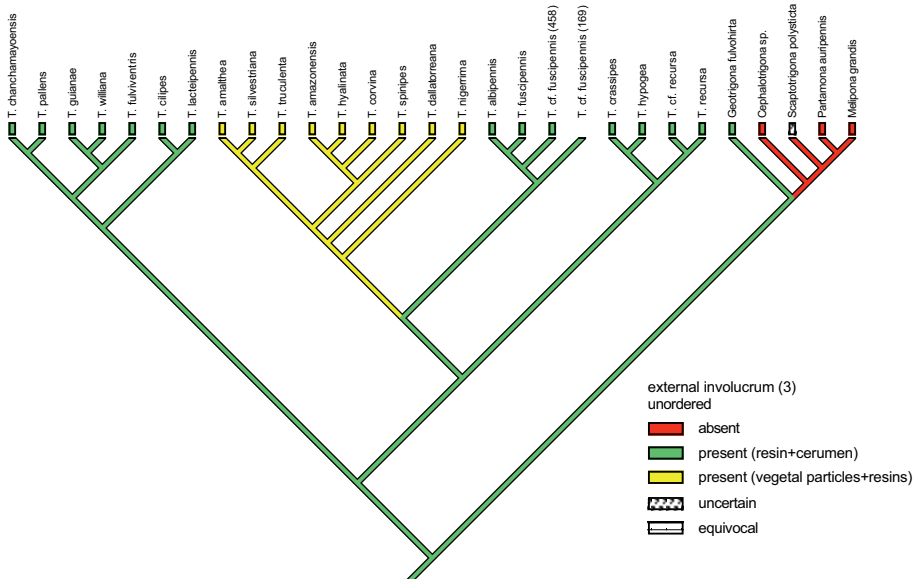


Figure 6. Optimization mapping of nest architectural and behavioral traits on the *Trigona* s.s. phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona* s.s. clade.

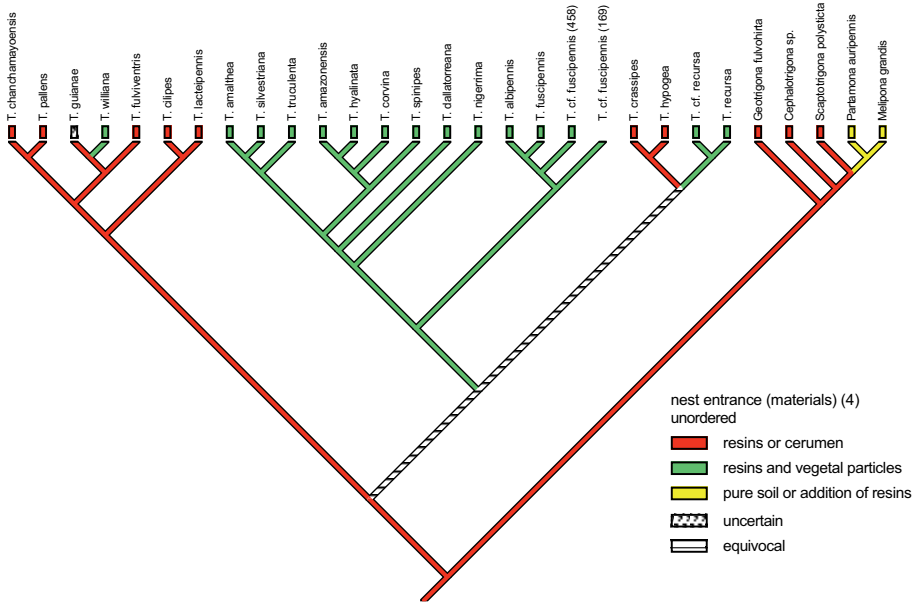


Figure 7. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

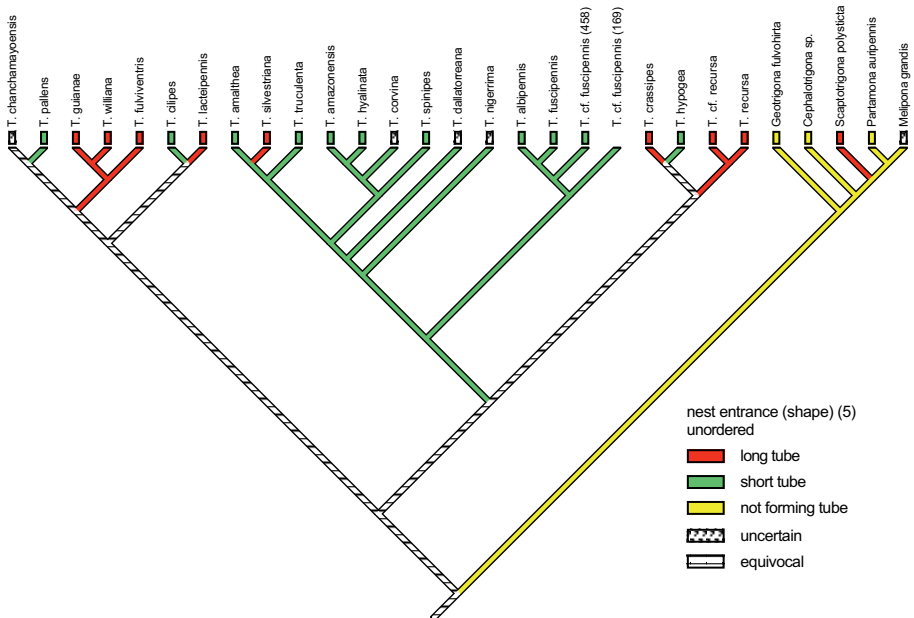


Figure 8. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

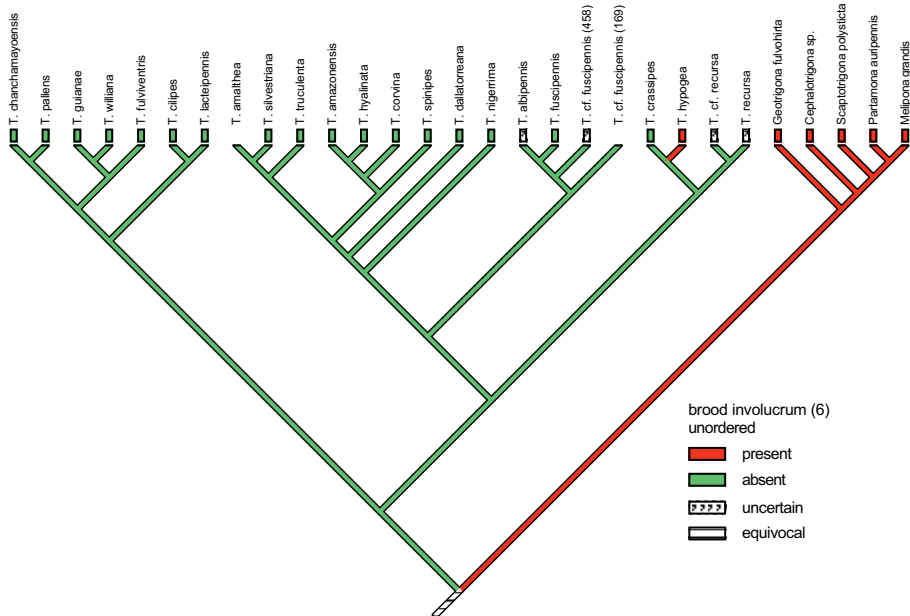


Figure 9. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

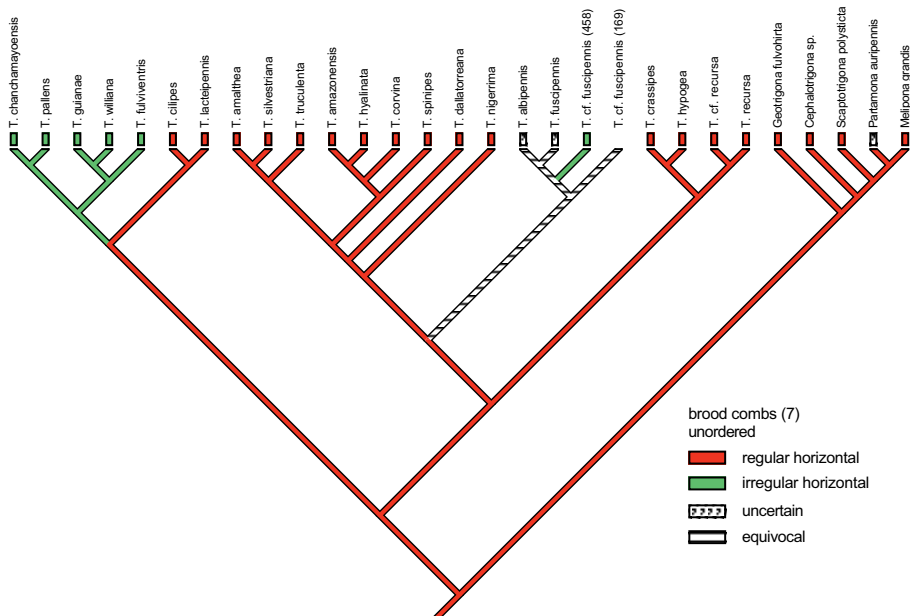


Figure 10. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

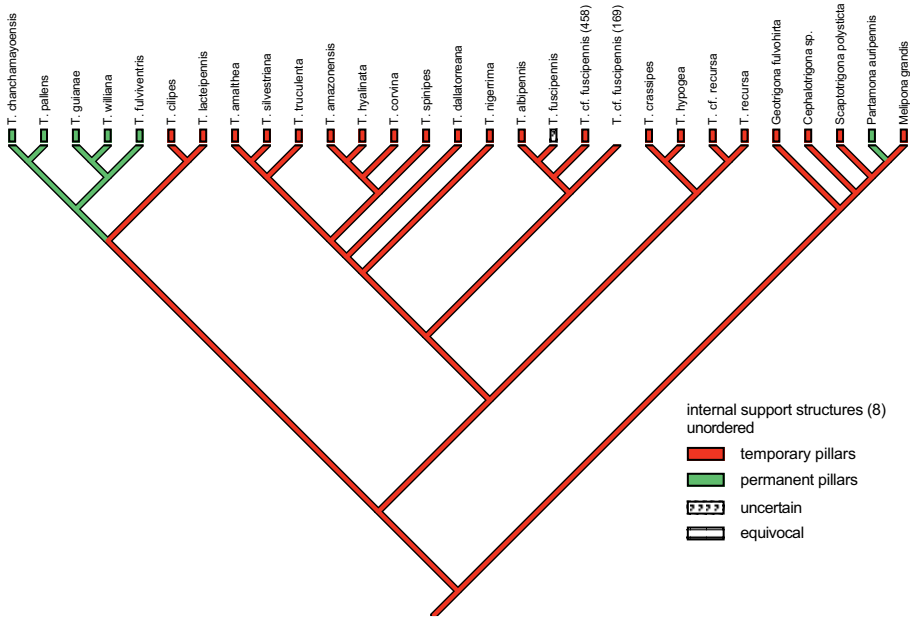


Figure 11. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

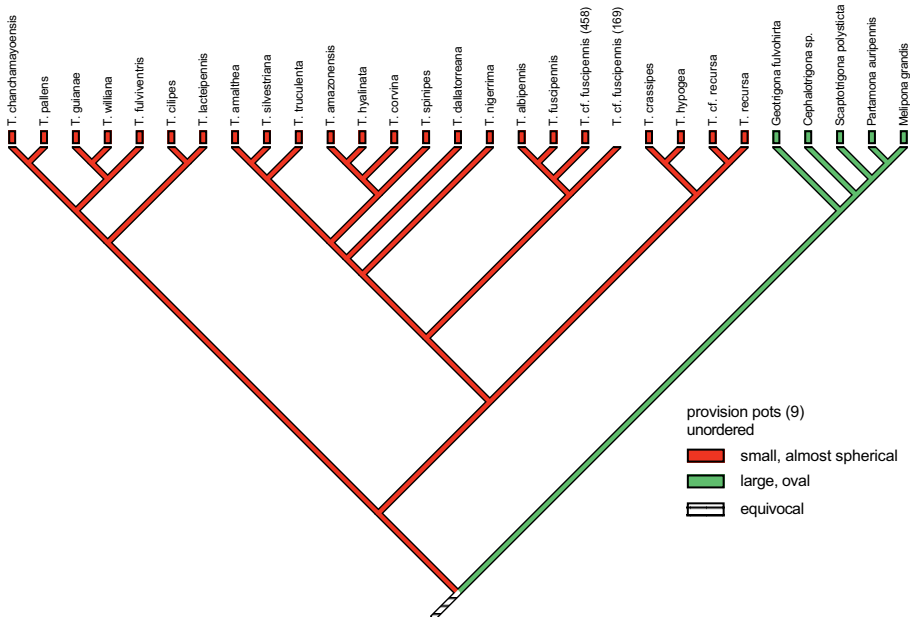


Figure 12. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

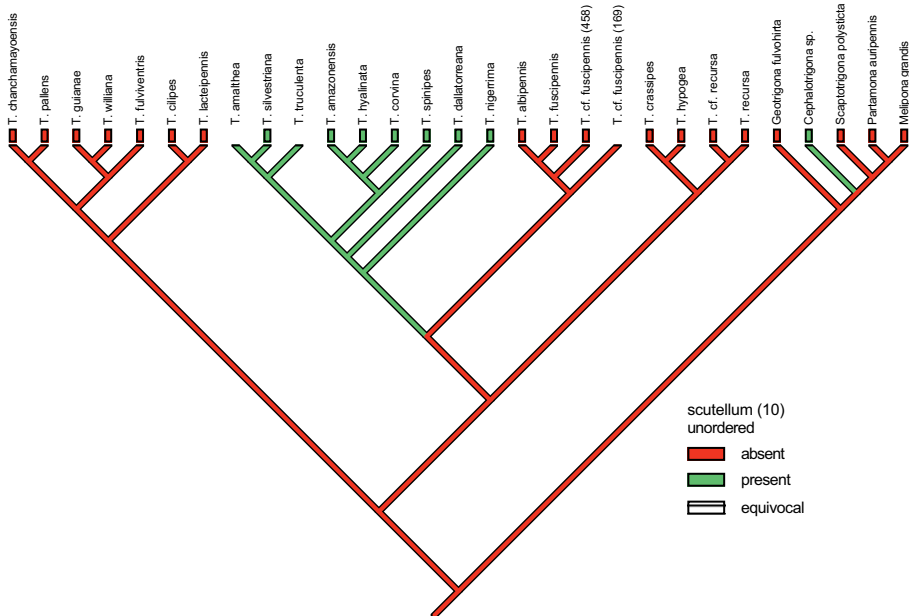


Figure 13. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

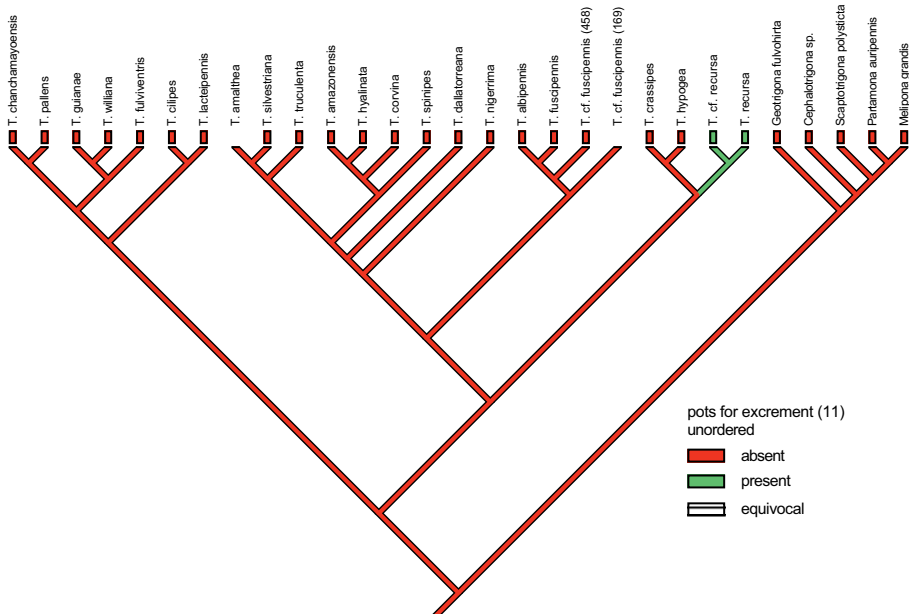


Figure 14. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

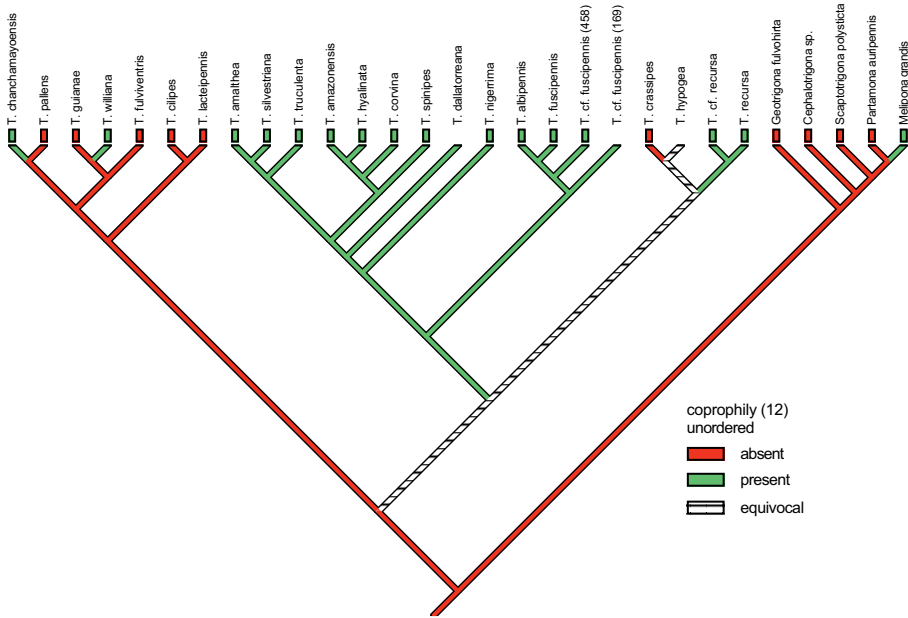


Figure 15. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

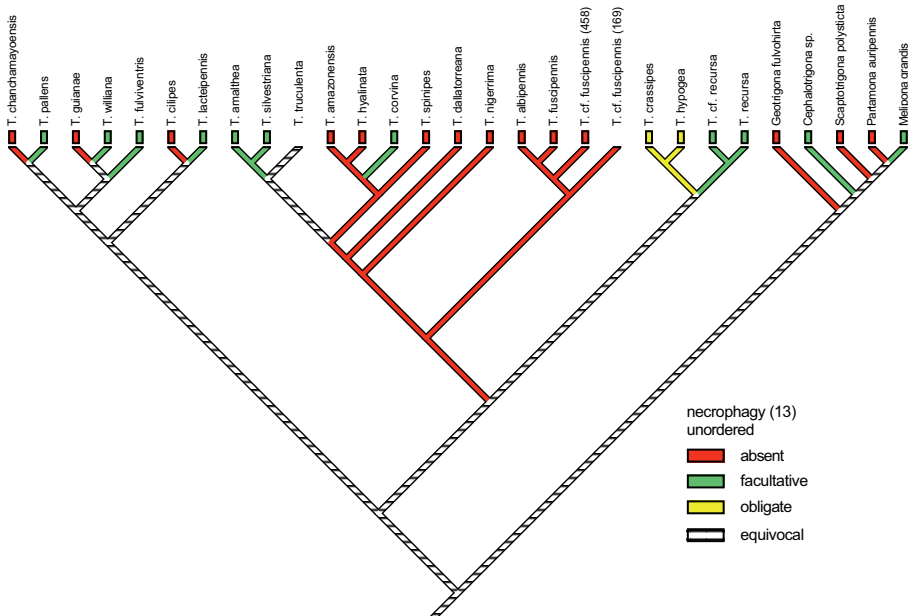


Figure 16. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

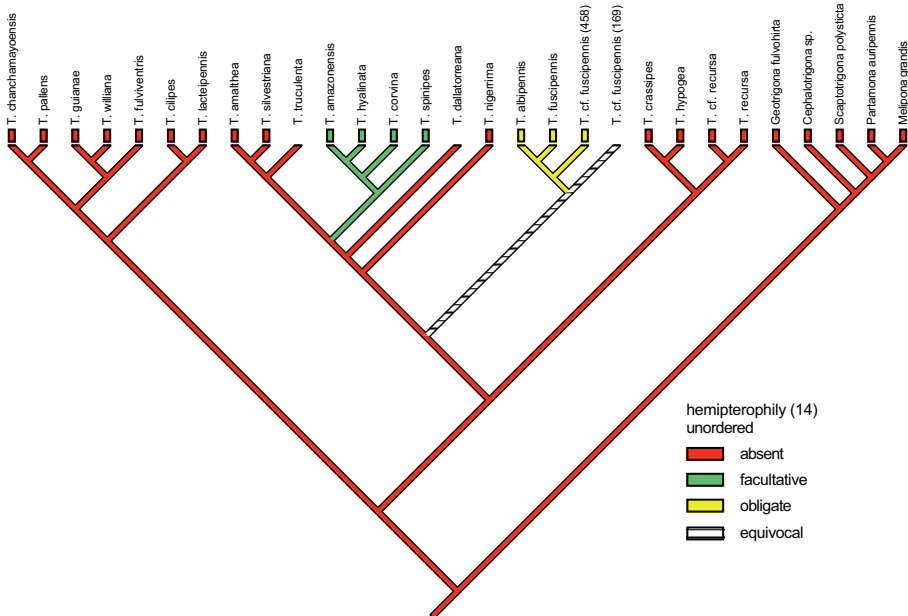


Figure 17. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.

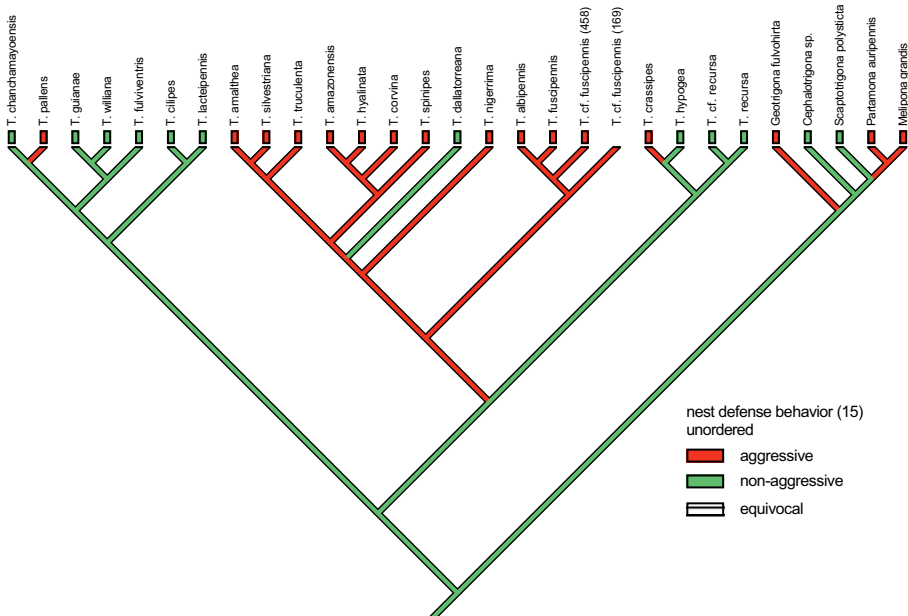


Figure 18. Optimization mapping of nest architectural and behavioral traits on the *Trigona s.s.* phylogeny. Character states are indicated by the legend and shade of the branches. Outgroup characters were included for the optimization and for inferring ancestral state for the *Trigona s.s.* clade.