SUPPORTING INFORMATION

Tracing the history and biogeography of the Australian blindsnake radiation

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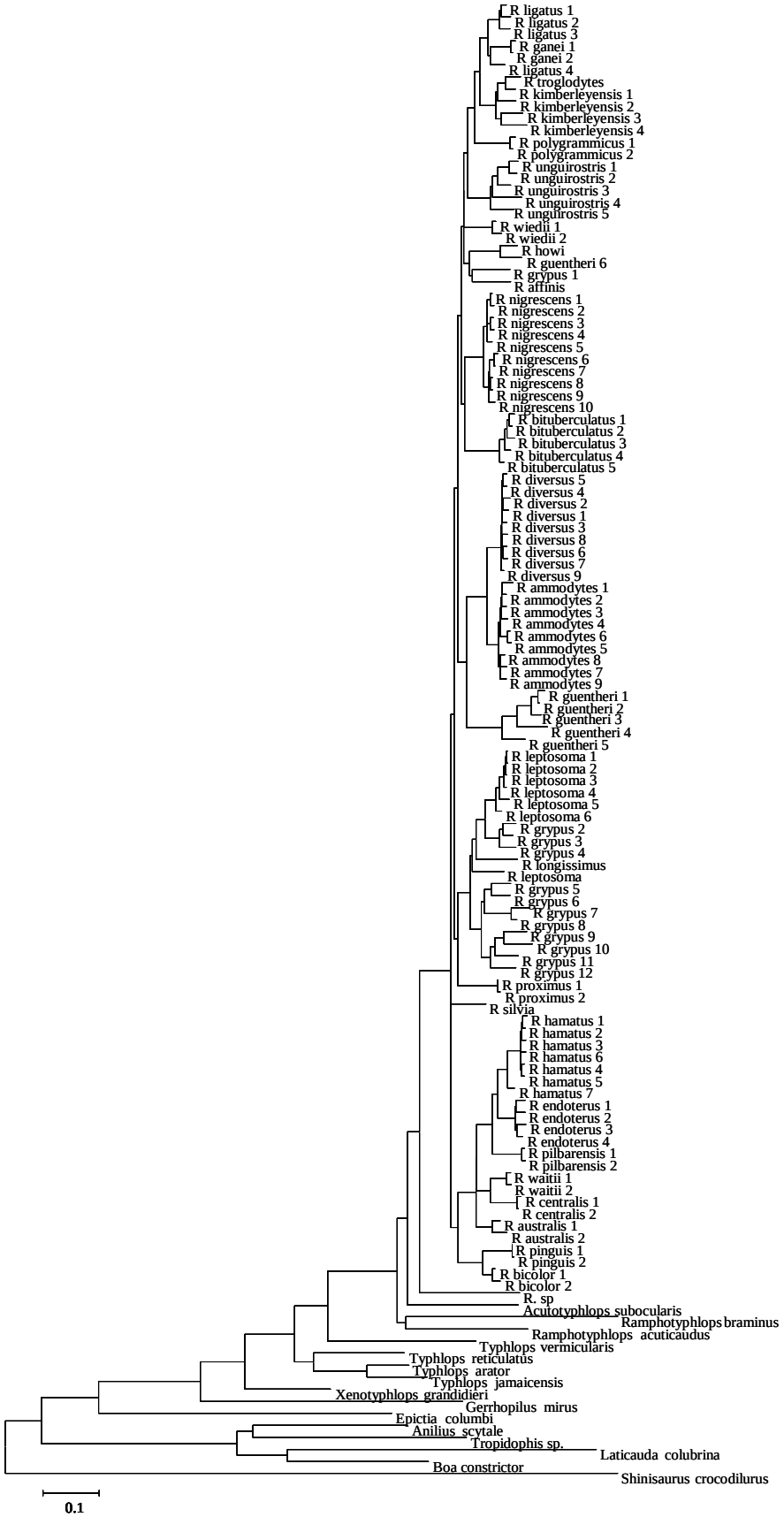
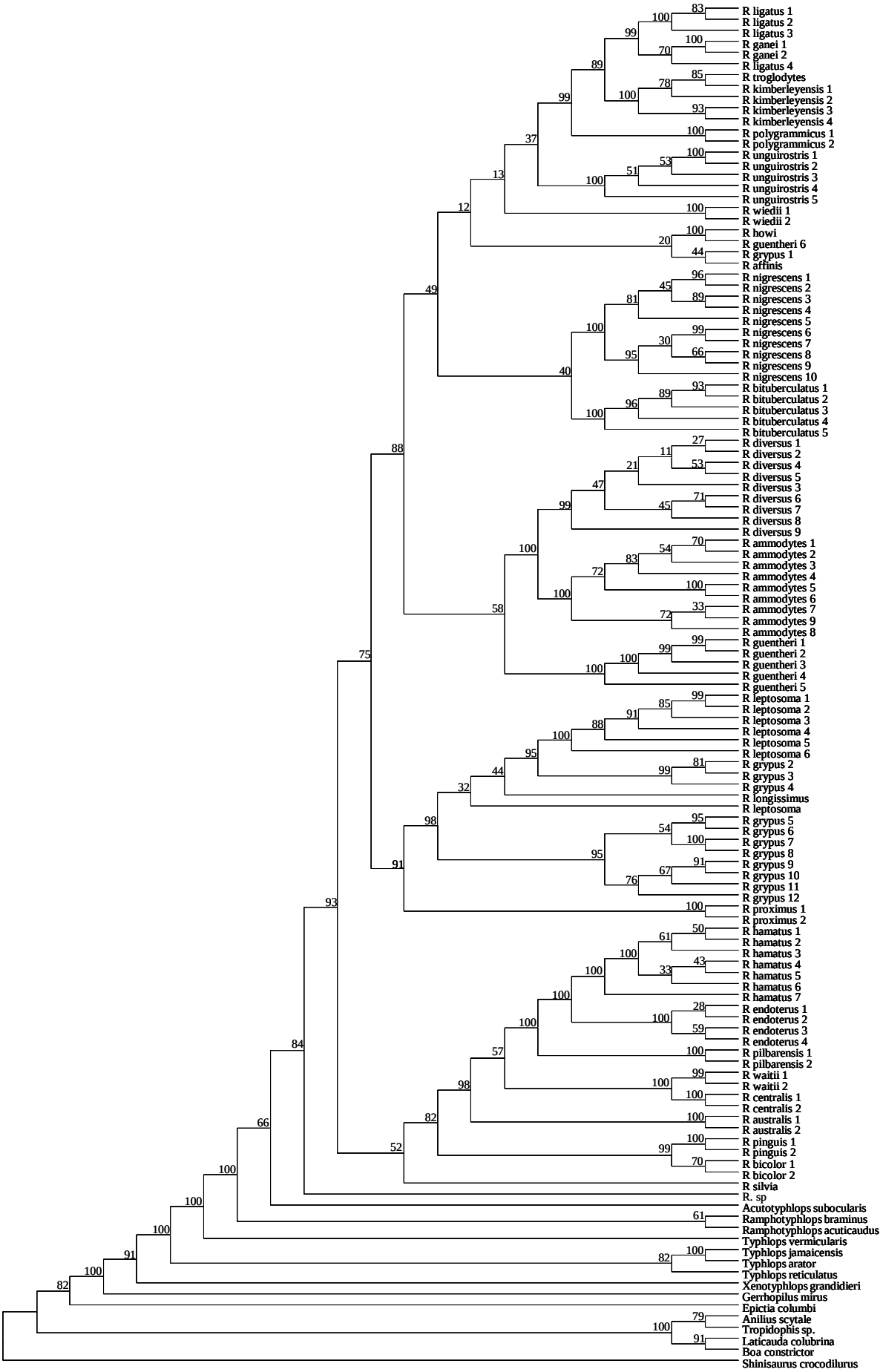
Appendix S2 Additional results (phylogenetic trees and estimated divergence times)

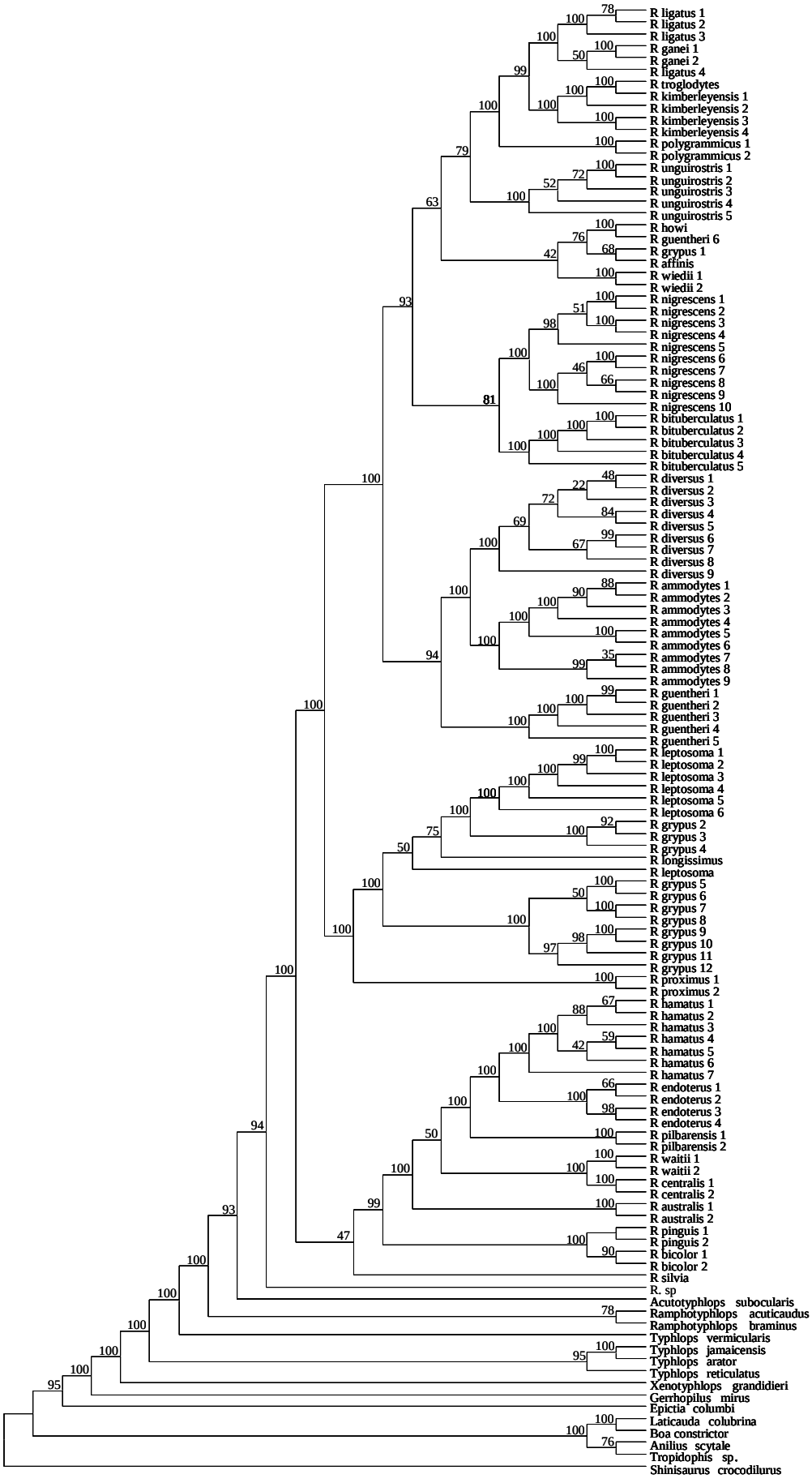
This appendix comprises the maximum likelihood (ML) phylogram, the ML bootstrap majority-rule consensus tree (1000 replicates) and the Bayesian consensus tree (10,000,000 generations) obtained with our data set. Ingroup sampling included 107 individuals belonging to 28 *Ramphotyphlops* (*R.*) species (Appendix S1 in Supporting Information lists the taxa, localities, and accession numbers of the specimens used in the study). For outgroups, we used *Epictia columbi* (Leptotyphlopidae), *Gerrhopilus mirus* (Gerrhopilidae), *Xenotyphlops grandidieri* (Xenotyphlopidae), *Typhlops reticulatus*, *T. arator*, *T. jamaicensis*, *T. vermicularis*, *Ramphotyphlops acuticaudus*, *R. braminus*, an undescribed species of *Ramphotyphlops* from Moyo Island, Lesser Sundas (hereafter, '*R.* sp.'), and *Acutotyphlops subocularis* (all Typhlopidae), *Anilius scytale* and *Tropidophis* sp. (Alethinophidia: Amerophidia), *Boa constrictor* and *Laticauda colubrina* (Alethinophidia: Afrophidia), and the lizard *Shinisaurus crocodilurus* (Anguimorpha: Shinisauridae). This appendix also includes the Bayesian topology with the node numbers used for timing analysis and the time estimates obtained.



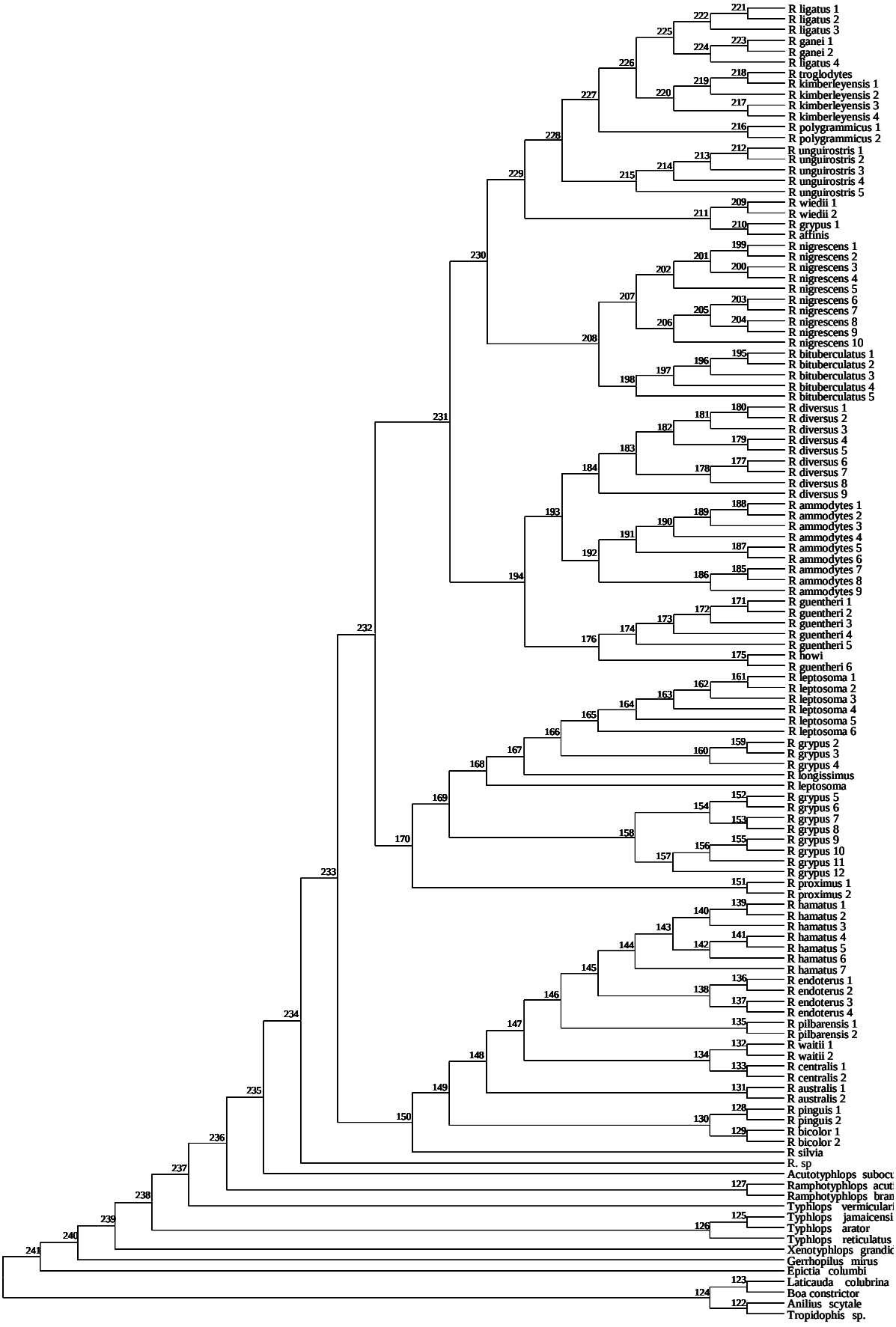
ML phylogram



ML bootstrap majority-rule consensus tree (1000 replicates)



Bayesian consensus tree (10,000,000 generations)



Bayesian tree node used for timing. The outgroup (not shown) is *Shinisaurus crocodilurus*.

Time estimates from final analysis (five calibration points): mean, standard deviation (S.D.) and 95% credibility interval.

Actual time node 122 = 0.90591 (S.D. = 0.08443) (0.72780, 1.04422)
Actual time node 123 = 0.98796 (S.D. = 0.03188) (0.94206, 1.05206)
Actual time node 124 = 1.05828 (S.D. = 0.00578) (1.04854, 1.06754)
Actual time node 125 = 0.27331 (S.D. = 0.05284) (0.16760, 0.36392)
Actual time node 126 = 0.66253 (S.D. = 0.09614) (0.47888, 0.85463)
Actual time node 127 = 0.48667 (S.D. = 0.06815) (0.36411, 0.63354)
Actual time node 128 = 0.01271 (S.D. = 0.01079) (0.00041, 0.03947)
Actual time node 129 = 0.03981 (S.D. = 0.02318) (0.00364, 0.09124)
Actual time node 130 = 0.09005 (S.D. = 0.03688) (0.02723, 0.17146)
Actual time node 131 = 0.05145 (S.D. = 0.02668) (0.00759, 0.11061)
Actual time node 132 = 0.02527 (S.D. = 0.01672) (0.00161, 0.06433)
Actual time node 133 = 0.02402 (S.D. = 0.01630) (0.00136, 0.06276)
Actual time node 134 = 0.08894 (S.D. = 0.03126) (0.03510, 0.15657)
Actual time node 135 = 0.01918 (S.D. = 0.01428) (0.00077, 0.05336)
Actual time node 136 = 0.02598 (S.D. = 0.01677) (0.00187, 0.06499)
Actual time node 137 = 0.02164 (S.D. = 0.01434) (0.00144, 0.05566)
Actual time node 138 = 0.04169 (S.D. = 0.01904) (0.01104, 0.08459)
Actual time node 139 = 0.01240 (S.D. = 0.00927) (0.00053, 0.03469)
Actual time node 140 = 0.02352 (S.D. = 0.01198) (0.00503, 0.05118)
Actual time node 141 = 0.01388 (S.D. = 0.00999) (0.00069, 0.03801)
Actual time node 142 = 0.02294 (S.D. = 0.01178) (0.00481, 0.05029)
Actual time node 143 = 0.03198 (S.D. = 0.01360) (0.01045, 0.06388)
Actual time node 144 = 0.05225 (S.D. = 0.01943) (0.02137, 0.09672)
Actual time node 145 = 0.07321 (S.D. = 0.02403) (0.03446, 0.12756)
Actual time node 146 = 0.10615 (S.D. = 0.02949) (0.05595, 0.17050)
Actual time node 147 = 0.13119 (S.D. = 0.03172) (0.07669, 0.20079)
Actual time node 148 = 0.14581 (S.D. = 0.03336) (0.08809, 0.21734)
Actual time node 149 = 0.16889 (S.D. = 0.03579) (0.10600, 0.24610)
Actual time node 150 = 0.19140 (S.D. = 0.03774) (0.12508, 0.27338)
Actual time node 151 = 0.02262 (S.D. = 0.01587) (0.00113, 0.05984)
Actual time node 152 = 0.03733 (S.D. = 0.02371) (0.00256, 0.09139)
Actual time node 153 = 0.04282 (S.D. = 0.02361) (0.00470, 0.09566)
Actual time node 154 = 0.08813 (S.D. = 0.02899) (0.03712, 0.15242)
Actual time node 155 = 0.03782 (S.D. = 0.02373) (0.00275, 0.09181)
Actual time node 156 = 0.07027 (S.D. = 0.02718) (0.02333, 0.13015)
Actual time node 157 = 0.09890 (S.D. = 0.02867) (0.04966, 0.16231)
Actual time node 158 = 0.11790 (S.D. = 0.02985) (0.06698, 0.18361)
Actual time node 159 = 0.02896 (S.D. = 0.01786) (0.00213, 0.07051)
Actual time node 160 = 0.05173 (S.D. = 0.02204) (0.01536, 0.10150)
Actual time node 161 = 0.01092 (S.D. = 0.00859) (0.00043, 0.03226)
Actual time node 162 = 0.01937 (S.D. = 0.01064) (0.00356, 0.04438)
Actual time node 163 = 0.03063 (S.D. = 0.01335) (0.00962, 0.06164)
Actual time node 164 = 0.04315 (S.D. = 0.01615) (0.01727, 0.07994)
Actual time node 165 = 0.06130 (S.D. = 0.02018) (0.02853, 0.10737)
Actual time node 166 = 0.09619 (S.D. = 0.02643) (0.05091, 0.15438)
Actual time node 167 = 0.11997 (S.D. = 0.02875) (0.07092, 0.18387)

Actual time node 168 = 0.13079 (S.D. = 0.02992) (0.07955, 0.19688)
Actual time node 169 = 0.14254 (S.D. = 0.03161) (0.08842, 0.21301)
Actual time node 170 = 0.18174 (S.D. = 0.03531) (0.12019, 0.25808)
Actual time node 171 = 0.02536 (S.D. = 0.01693) (0.00149, 0.06515)
Actual time node 172 = 0.04854 (S.D. = 0.02154) (0.01324, 0.09731)
Actual time node 173 = 0.06495 (S.D. = 0.02439) (0.02429, 0.11865)
Actual time node 174 = 0.08409 (S.D. = 0.02746) (0.03830, 0.14515)
Actual time node 175 = 0.07219 (S.D. = 0.02780) (0.02404, 0.13222)
Actual time node 176 = 0.13528 (S.D. = 0.03329) (0.07704, 0.20767)
Actual time node 177 = 0.01670 (S.D. = 0.01109) (0.00100, 0.04304)
Actual time node 178 = 0.02910 (S.D. = 0.01284) (0.00829, 0.05832)
Actual time node 179 = 0.01801 (S.D. = 0.01126) (0.00146, 0.04421)
Actual time node 180 = 0.01311 (S.D. = 0.00952) (0.00058, 0.03559)
Actual time node 181 = 0.02155 (S.D. = 0.01106) (0.00442, 0.04730)
Actual time node 182 = 0.02951 (S.D. = 0.01241) (0.00943, 0.05788)
Actual time node 183 = 0.03899 (S.D. = 0.01409) (0.01633, 0.07060)
Actual time node 184 = 0.04897 (S.D. = 0.01630) (0.02239, 0.08646)
Actual time node 185 = 0.02259 (S.D. = 0.01306) (0.00220, 0.05212)
Actual time node 186 = 0.03483 (S.D. = 0.01431) (0.01117, 0.06713)
Actual time node 187 = 0.01807 (S.D. = 0.01173) (0.00117, 0.04505)
Actual time node 188 = 0.01283 (S.D. = 0.00946) (0.00052, 0.03501)
Actual time node 189 = 0.02120 (S.D. = 0.01120) (0.00428, 0.04701)
Actual time node 190 = 0.02986 (S.D. = 0.01282) (0.00979, 0.05926)
Actual time node 191 = 0.03882 (S.D. = 0.01451) (0.01564, 0.07192)
Actual time node 192 = 0.04838 (S.D. = 0.01622) (0.02239, 0.08522)
Actual time node 193 = 0.06737 (S.D. = 0.02134) (0.03353, 0.11674)
Actual time node 194 = 0.16075 (S.D. = 0.03410) (0.10150, 0.23217)
Actual time node 195 = 0.01445 (S.D. = 0.01098) (0.00063, 0.04104)
Actual time node 196 = 0.02824 (S.D. = 0.01452) (0.00602, 0.06202)
Actual time node 197 = 0.04312 (S.D. = 0.01772) (0.01503, 0.08359)
Actual time node 198 = 0.05656 (S.D. = 0.02070) (0.02308, 0.10454)
Actual time node 199 = 0.01368 (S.D. = 0.01054) (0.00062, 0.03918)
Actual time node 200 = 0.01173 (S.D. = 0.00911) (0.00049, 0.03447)
Actual time node 201 = 0.02683 (S.D. = 0.01356) (0.00575, 0.05832)
Actual time node 202 = 0.03653 (S.D. = 0.01542) (0.01227, 0.07163)
Actual time node 203 = 0.01039 (S.D. = 0.00844) (0.00038, 0.03094)
Actual time node 204 = 0.01564 (S.D. = 0.01138) (0.00075, 0.04349)
Actual time node 205 = 0.02545 (S.D. = 0.01350) (0.00508, 0.05673)
Actual time node 206 = 0.03903 (S.D. = 0.01665) (0.01267, 0.07733)
Actual time node 207 = 0.05372 (S.D. = 0.02022) (0.02173, 0.10070)
Actual time node 208 = 0.13775 (S.D. = 0.03470) (0.07583, 0.21256)
Actual time node 209 = 0.03136 (S.D. = 0.01896) (0.00263, 0.07526)
Actual time node 210 = 0.09080 (S.D. = 0.03443) (0.02709, 0.16195)
Actual time node 211 = 0.13855 (S.D. = 0.03107) (0.08439, 0.20651)
Actual time node 212 = 0.03900 (S.D. = 0.02076) (0.00443, 0.08472)
Actual time node 213 = 0.06523 (S.D. = 0.02385) (0.02411, 0.11796)
Actual time node 214 = 0.08704 (S.D. = 0.02666) (0.04125, 0.14665)
Actual time node 215 = 0.09731 (S.D. = 0.02813) (0.04900, 0.16016)
Actual time node 216 = 0.02266 (S.D. = 0.01597) (0.00122, 0.06130)
Actual time node 217 = 0.03587 (S.D. = 0.02121) (0.00313, 0.08365)

Actual time node 218 = 0.02843 (S.D. = 0.01702) (0.00252, 0.06758)
Actual time node 219 = 0.04496 (S.D. = 0.01892) (0.01403, 0.08707)
Actual time node 220 = 0.06569 (S.D. = 0.02312) (0.02747, 0.11871)
Actual time node 221 = 0.01710 (S.D. = 0.01159) (0.00108, 0.04491)
Actual time node 222 = 0.04042 (S.D. = 0.01789) (0.01159, 0.08105)
Actual time node 223 = 0.01939 (S.D. = 0.01396) (0.00097, 0.05301)
Actual time node 224 = 0.05496 (S.D. = 0.02193) (0.01818, 0.10441)
Actual time node 225 = 0.07012 (S.D. = 0.02342) (0.03159, 0.12302)
Actual time node 226 = 0.09981 (S.D. = 0.02719) (0.05387, 0.16060)
Actual time node 227 = 0.12765 (S.D. = 0.02964) (0.07663, 0.19311)
Actual time node 228 = 0.14526 (S.D. = 0.03098) (0.09166, 0.21379)
Actual time node 229 = 0.15551 (S.D. = 0.03189) (0.09955, 0.22558)
Actual time node 230 = 0.16635 (S.D. = 0.03311) (0.10898, 0.23970)
Actual time node 231 = 0.18234 (S.D. = 0.03435) (0.12233, 0.25693)
Actual time node 232 = 0.19956 (S.D. = 0.03638) (0.13533, 0.27808)
Actual time node 233 = 0.21901 (S.D. = 0.03865) (0.15152, 0.30237)
Actual time node 234 = 0.35091 (S.D. = 0.03247) (0.26831, 0.38878)
Actual time node 235 = 0.43831 (S.D. = 0.05736) (0.33675, 0.56462)
Actual time node 236 = 0.51661 (S.D. = 0.06851) (0.39668, 0.66604)
Actual time node 237 = 0.73010 (S.D. = 0.08693) (0.56583, 0.90714)
Actual time node 238 = 0.79806 (S.D. = 0.08717) (0.63321, 0.97516)
Actual time node 239 = 1.01966 (S.D. = 0.10581) (0.81984, 1.23100)
Actual time node 240 = 1.19871 (S.D. = 0.09773) (1.01060, 1.39384)
Actual time node 241 = 1.52991 (S.D. = 0.00580) (1.52046, 1.53954)
Actual time node 242 = 1.63292 (S.D. = 0.06543) (1.53650, 1.78332)