

Supporting Information S3

Results of the Bayesian-Binary MCMC analysis performed on each of the five most parsimonious trees resulting from maximum parsimony analysis of lambeosaurine relationships. Numbers represent probability proportions of inferred ancestral areas. Node numbers correspond to those in the phylograms included below.

Areas

A = North America; B = European Archipelago; C = Asia

Tree 1

Node 29: C 87.19 BC 6.90 B 3.20 AC 1.71 A 0.79 ABC 0.14 AB 0.06

Node 30: C 86.21 BC 6.43 B 4.78 AC 1.38 A 1.03 ABC 0.10 AB 0.08

Node 31: A 99.85 AC 0.09 AB 0.06 C 0.00 B 0.00 ABC 0.00 BC 0.00

Node 32: A 98.13 AC 1.56 C 0.25 AB 0.05 B 0.01 ABC 0.00 BC 0.00

Node 33: A 44.49 C 37.99 AC 17.04 B 0.24 AB 0.11 BC 0.09 ABC 0.04

Node 34: A 99.84 AC 0.10 AB 0.06 C 0.00 B 0.00 ABC 0.00 BC 0.00

Node 35: A 99.93 AC 0.04 AB 0.03 C 0.00 B 0.00 ABC 0.00 BC 0.00

Node 36: B 88.75 AB 9.04 A 2.15 BC 0.04 C 0.01 ABC 0.00 AC 0.00

Node 37: A 95.98 AB 3.38 B 0.46 AC 0.15 C 0.02 ABC 0.01 BC 0.00

Node 38: C 92.56 AC 5.89 A 1.44 BC 0.08 B 0.02 ABC 0.01 AB 0.00

Node 39: A 93.85 AC 5.07 C 0.95 AB 0.11 B 0.02 ABC 0.01 BC 0.00

Node 40: A 97.87 AC 1.86 C 0.19 AB 0.08 B 0.01 ABC 0.00 BC 0.00

Node 41: A 91.58 AC 6.78 C 1.40 AB 0.18 B 0.04 ABC 0.01 BC 0.00

Node 42: A 98.55 AC 0.83 AB 0.53 C 0.05 B 0.03 ABC 0.00 BC 0.00

Node 43: A 99.72 AC 0.17 AB 0.10 C 0.00 B 0.00 ABC 0.00 BC 0.00

Node 44: A 99.74 AC 0.18 AB 0.08 C 0.00 B 0.00 ABC 0.00 BC 0.00

Node 45: A 97.29 AC 2.34 C 0.26 AB 0.09 B 0.01 ABC 0.00 BC 0.00

Node 46: A 38.53 C 36.08 AC 25.02 B 0.13 AB 0.09 BC 0.09 ABC 0.06

Node 47: C 89.83 AC 5.90 A 2.19 BC 1.42 B 0.53 ABC 0.09 AB 0.03

Node 48: C 95.72 AC 2.79 BC 0.95 A 0.38 B 0.13 ABC 0.03 AB 0.00

Node 49: C 87.43 AC 9.14 A 1.62 BC 1.39 B 0.25 ABC 0.15 AB 0.03

Tree 2 (only probabilities for the *Hypacrosaurus stebingeri*-*Amurosaurus riabinini* clade)

Node 36: B 90.69 AB 7.62 A 1.62 BC 0.06 C 0.01 ABC 0.00 AC 0.00

Node 37: A 90.35 AB 6.18 B 2.80 AC 0.43 C 0.19 ABC 0.03 BC 0.01

Node 38: A 91.05 AC 4.72 C 2.44 AB 1.12 B 0.58 ABC 0.06 BC 0.03

Node 39: C 91.96 AC 6.43 A 1.52 BC 0.07 B 0.02 ABC 0.00 AB 0.00

Node 40: A 96.40 AC 3.12 C 0.36 AB 0.10 B 0.01 ABC 0.00 BC 0.00

Node 41: A 99.43 AC 0.49 AB 0.06 C 0.02 B 0.00 ABC 0.00 BC 0.00

Node 42: A 98.77 AC 1.00 AB 0.17 C 0.05 B 0.01 ABC 0.00 BC 0.00

Node 43: A 99.77 AC 0.17 AB 0.06 C 0.00 B 0.00 ABC 0.00 BC 0.00

Tree 3 (only probabilities for the *Hypacrosaurus stebingeri*-*Amurosaurus riabinini* clade)

Node 36: B 87.84 AB 9.59 A 2.52 BC 0.04 C 0.01 ABC 0.00 AC 0.00

Node 37: A 95.87 AB 3.44 B 0.51 AC 0.14 C 0.02 ABC 0.01 BC 0.00

Node 38: C 92.35 AC 6.08 A 1.47 BC 0.07 B 0.02 ABC 0.00 AB 0.00

Node 39: A 96.16 AC 3.29 C 0.43 AB 0.11 B 0.01 ABC 0.00 BC 0.00

Node 40: A 99.39 AC 0.50 AB 0.08 C 0.02 B 0.00 ABC 0.00 BC 0.00

Node 41: A 98.85 AB 0.55 AC 0.51 B 0.05 C 0.04 ABC 0.00 BC 0.00

Node 42: A 95.18 AC 3.78 C 0.74 AB 0.24 B 0.05 ABC 0.01 BC 0.00

Node 43: A 99.31 AC 0.61 AB 0.07 C 0.01 B 0.00 ABC 0.00 BC 0.00

Tree 4 (only probabilities for the *Hypacrosaurus stebingeri*-*Amurosaurus riabinini* clade)

Node 36: B 97.82 AB 1.72 BC 0.23 A 0.20 C 0.03 ABC 0.00 AC 0.00

Node 37: A 48.75 C 20.39 B 19.07 AC 4.87 AB 4.56 BC 1.91 ABC 0.46

Node 38: A 98.40 AC 0.73 AB 0.69 C 0.09 B 0.08 ABC 0.01 BC 0.00

Node 39: C 91.21 AC 6.99 A 1.70 BC 0.07 B 0.02 ABC 0.01 AB 0.00

Node 40: A 96.48 AC 3.10 C 0.32 AB 0.10 B 0.01 ABC 0.00 BC 0.00

Node 41: A 99.59 AC 0.35 AB 0.05 C 0.01 B 0.00 ABC 0.00 BC 0.00

Node 42: A 99.62 AC 0.25 AB 0.13 C 0.00 B 0.00 ABC 0.00 BC 0.00

Node 43: A 99.88 AC 0.07 AB 0.05 C 0.00 B 0.00 ABC 0.00 BC 0.00

Tree 5 (only probabilities for the *Hypacrosaurus stebingeri*-*Amurosaurus riabinini* clade)

Node 36: A 88.97 AC 4.86 C 4.26 AB 0.96 B 0.84 ABC 0.05 BC 0.05

Node 37: B 90.99 AB 7.37 A 1.55 BC 0.07 C 0.01 ABC 0.01 AC 0.00

Node 38: A 91.53 AB 4.78 B 2.14 AC 1.01 C 0.45 ABC 0.05 BC 0.02

Node 39: C 92.09 AC 6.32 A 1.50 BC 0.07 B 0.02 ABC 0.00 AB 0.00

Node 40: A 96.42 AC 3.09 C 0.37 AB 0.10 B 0.01 ABC 0.00 BC 0.00

Node 41: A 99.53 AC 0.37 AB 0.08 C 0.01 B 0.00 ABC 0.00 BC 0.00

Node 42: A 99.02 AB 0.59 AC 0.34 B 0.03 C 0.02 ABC 0.00 BC 0.00

Node 43: A 99.79 AB 0.12 AC 0.09 B 0.00 C 0.00 ABC 0.00 BC 0.00

