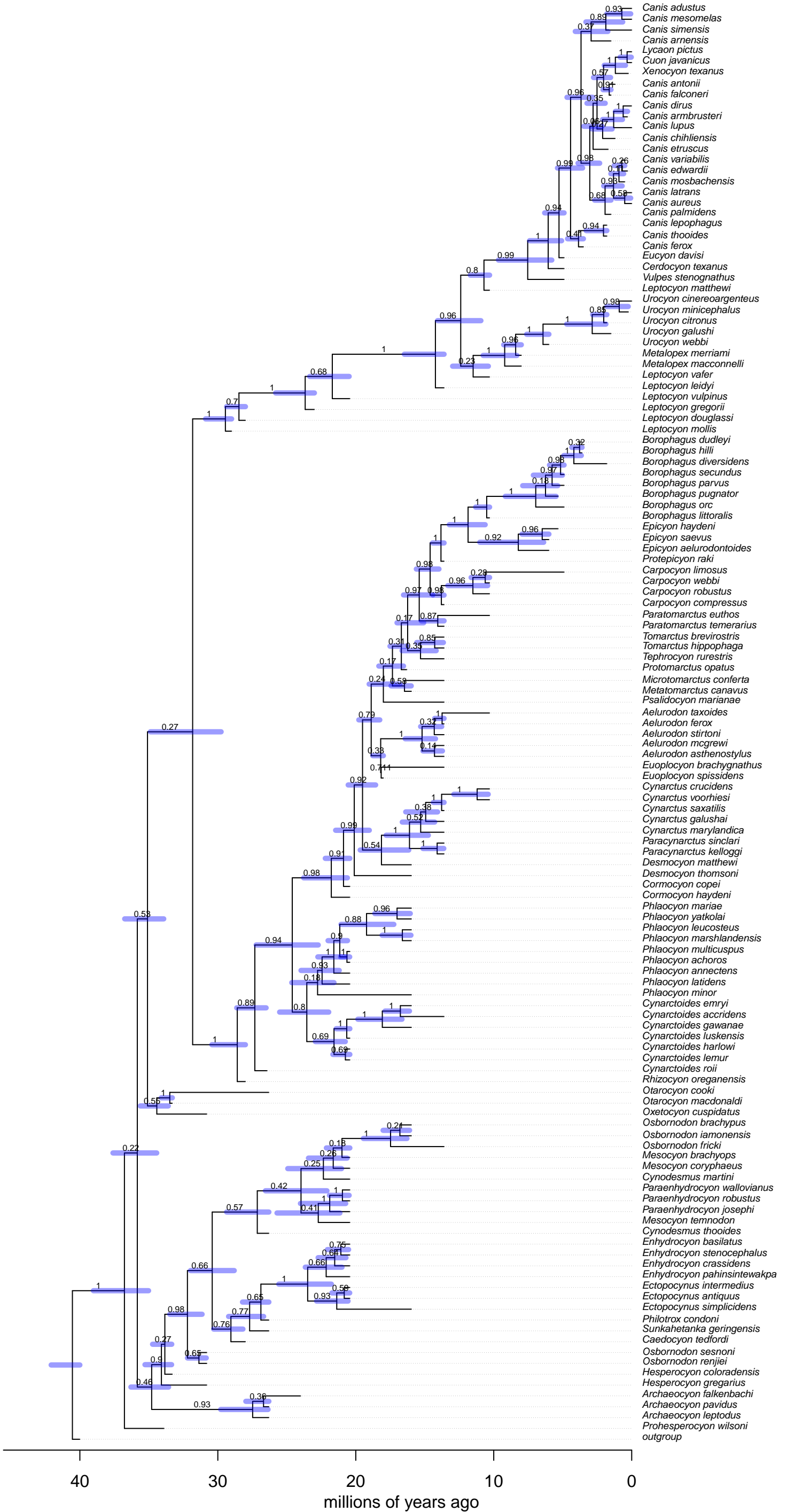
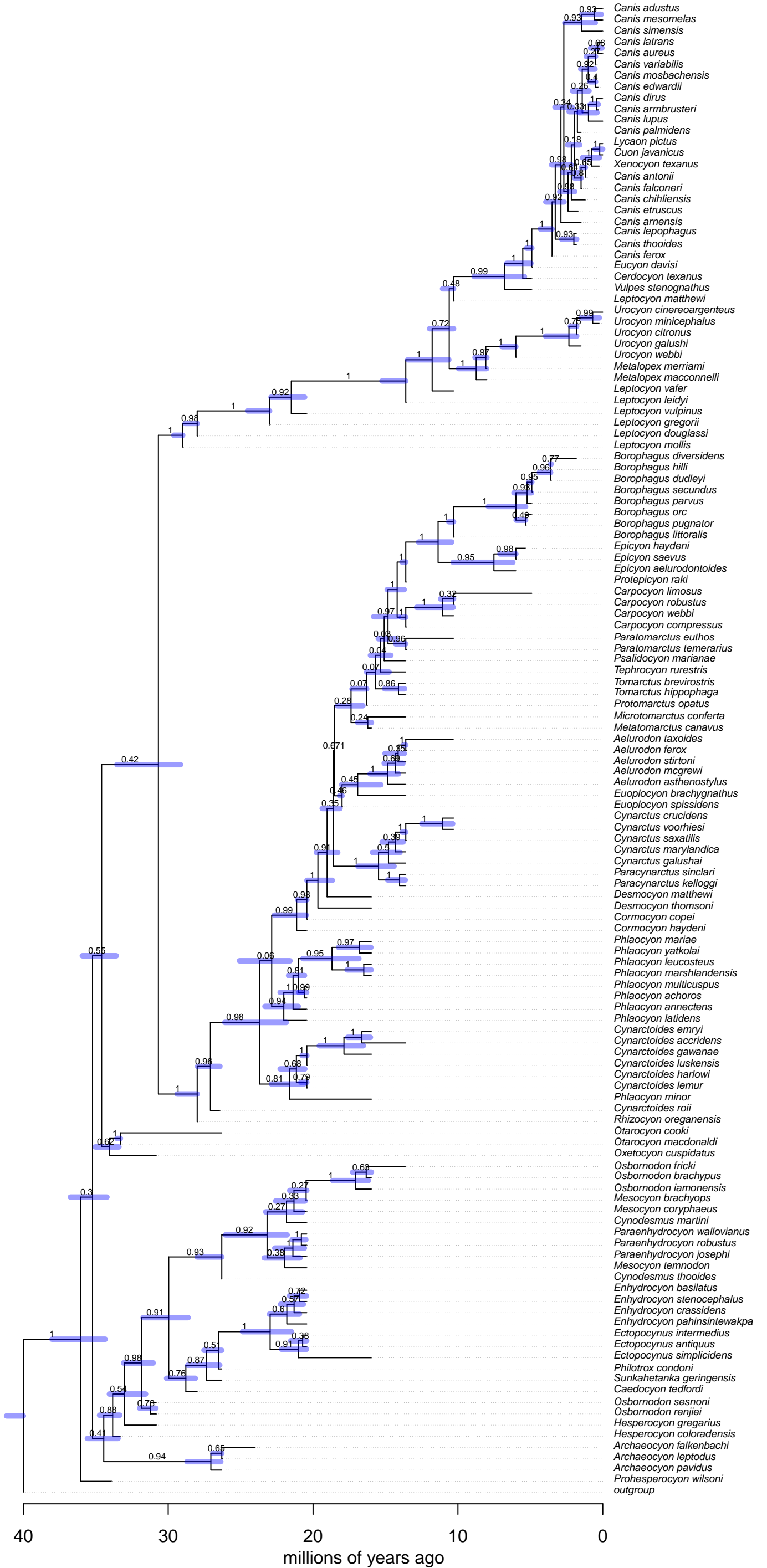


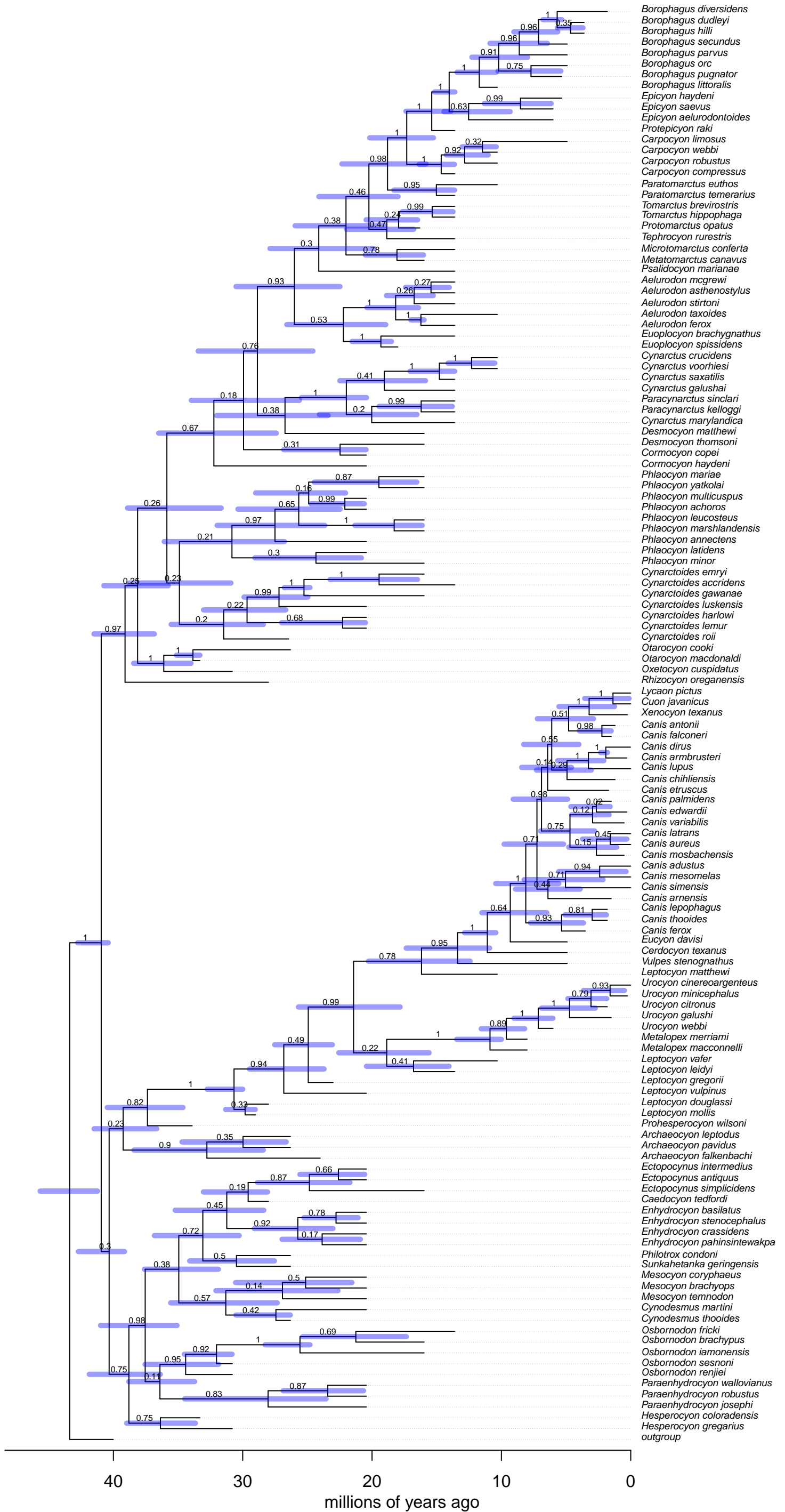
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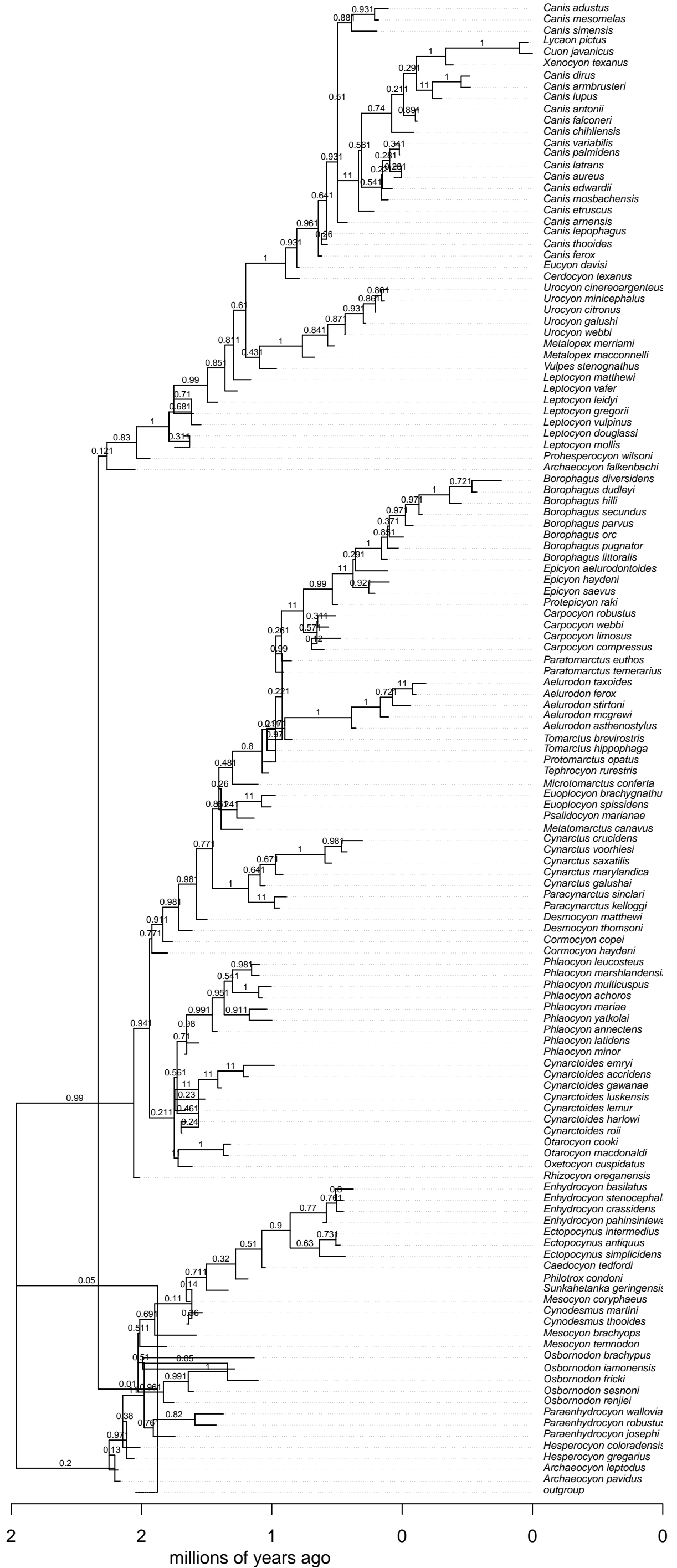
2: Beast2.1.3_r2



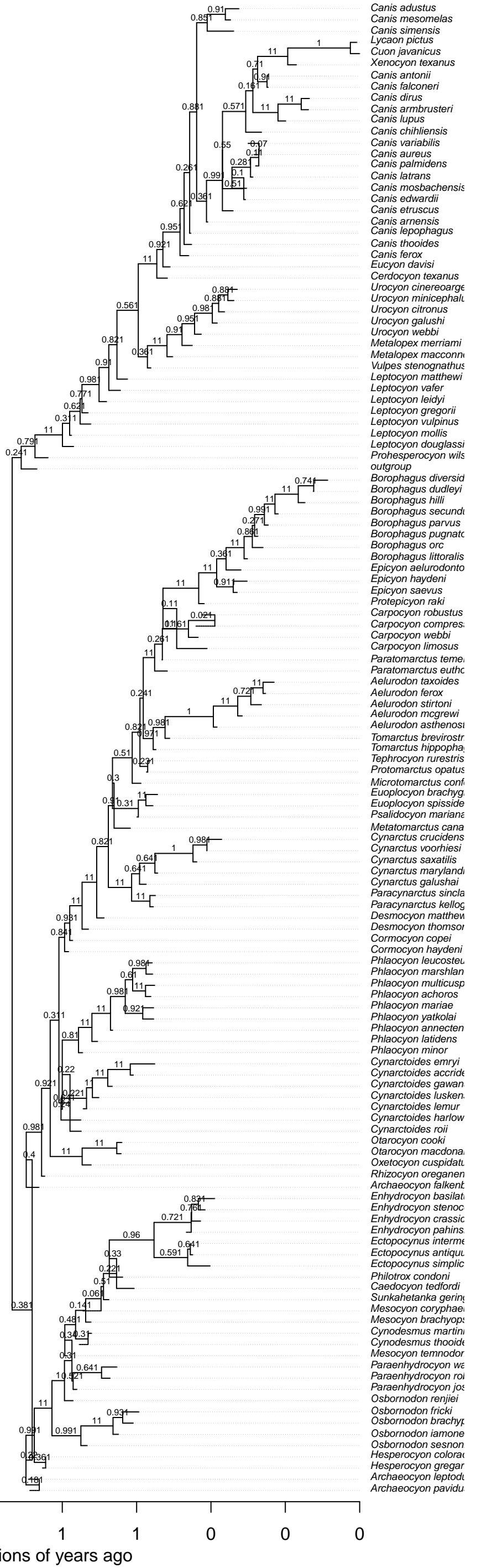
3: mb3.2.5_mb1_orig



4: mb3.2.5_mb2_orig

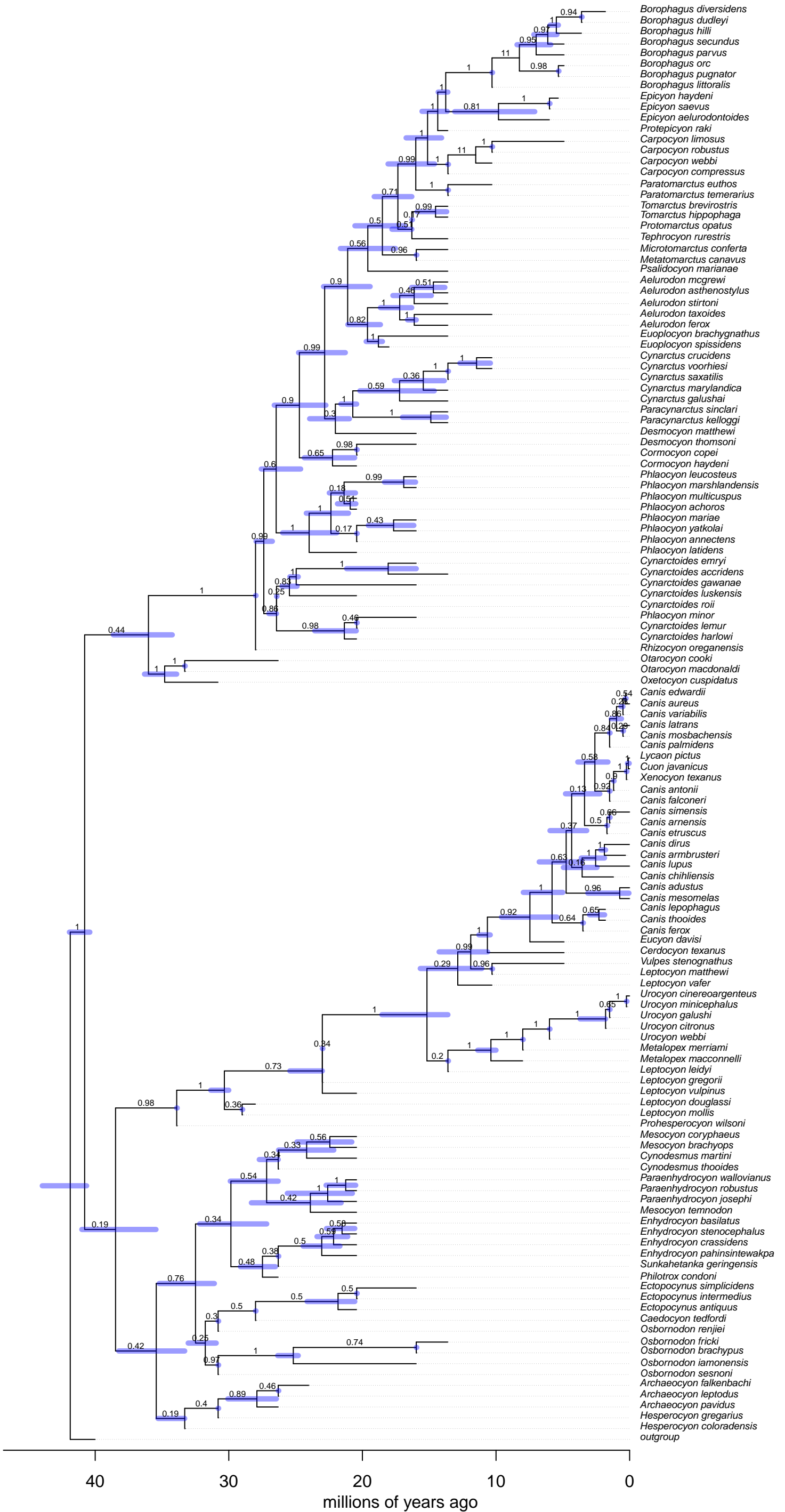


5: mb3.2.5_mb2_mfixed

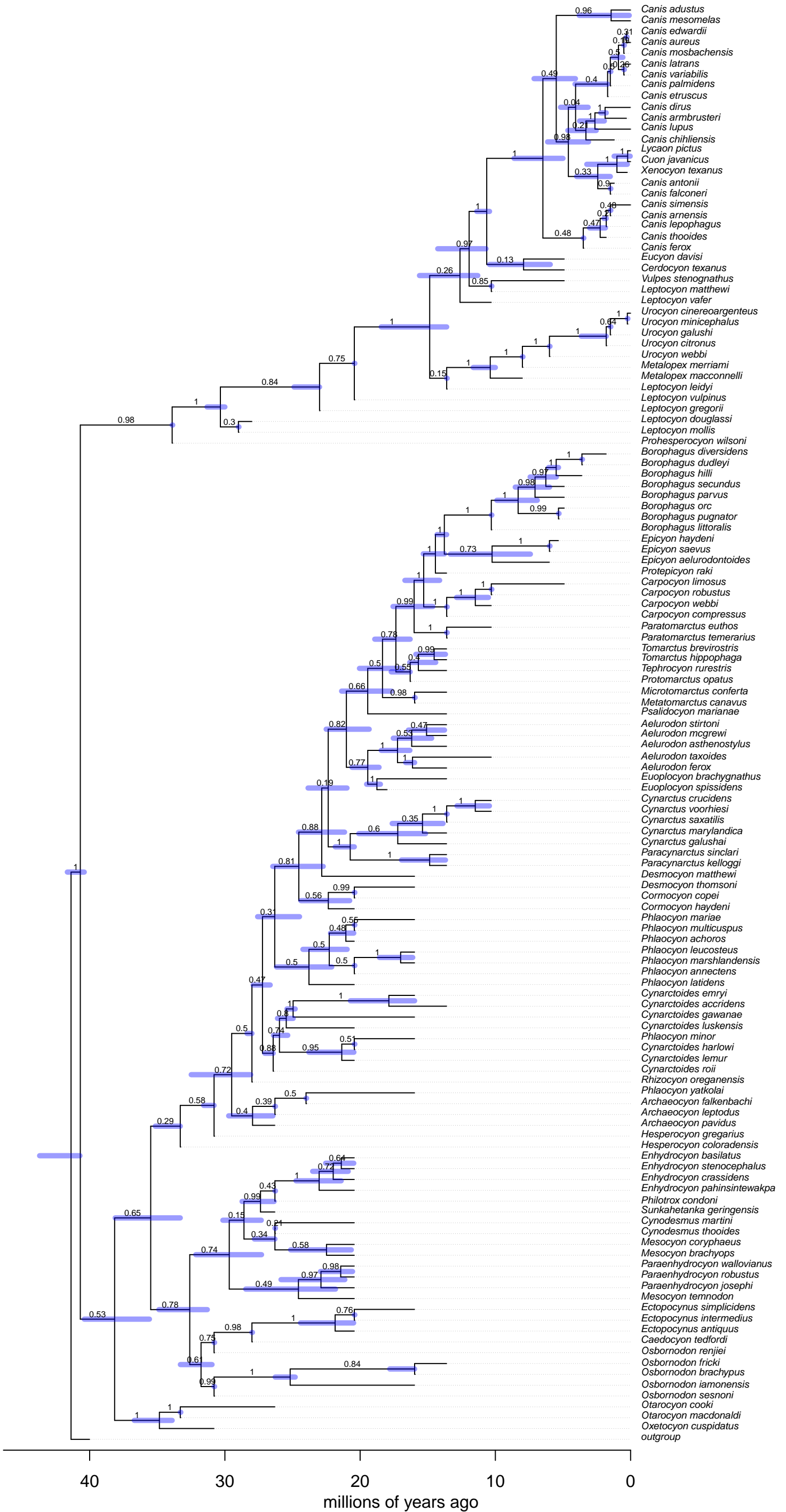


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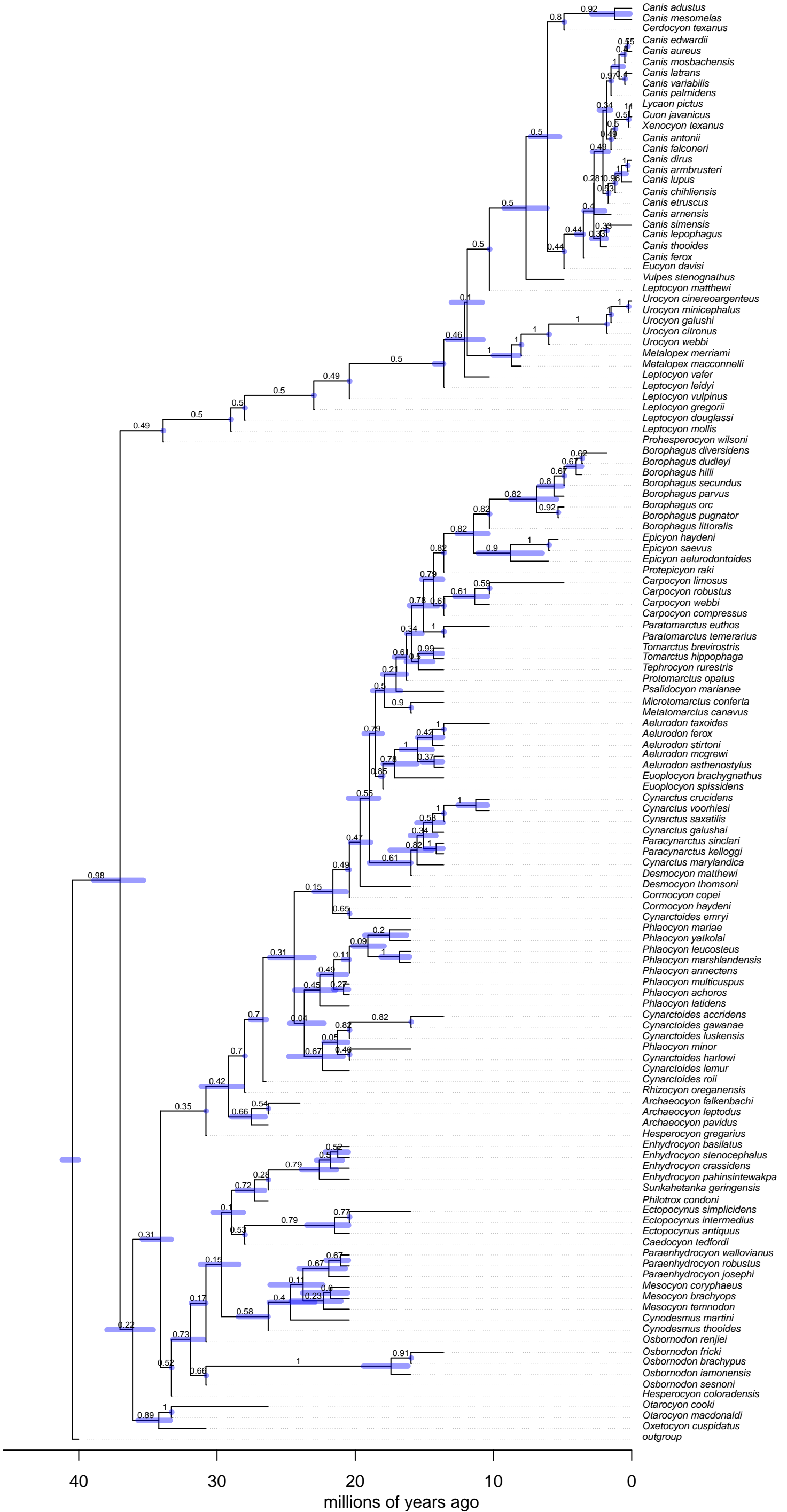
6: mb3.2.5_mb3_orig



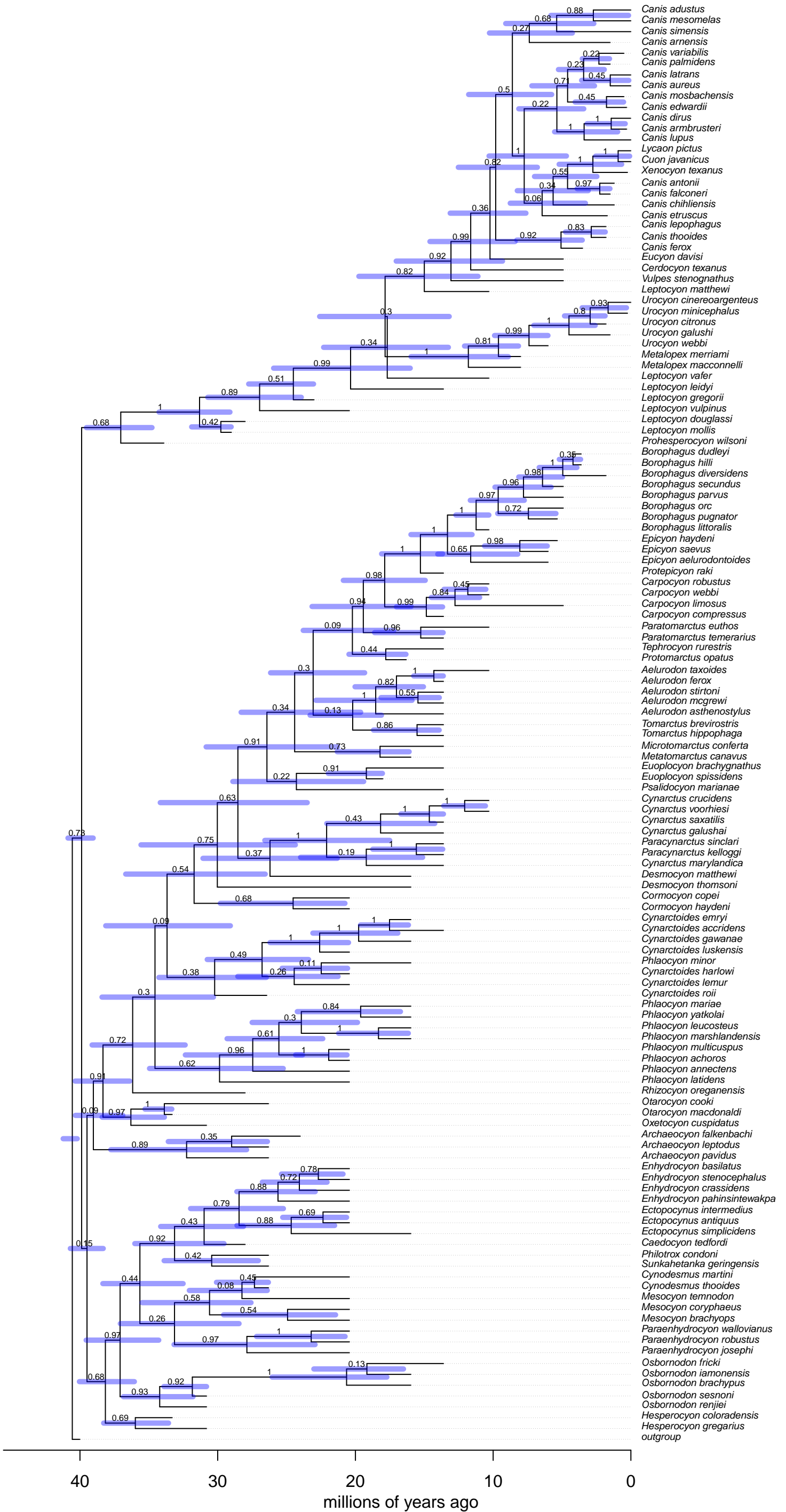
7: mb3.2.5_mb4_orig



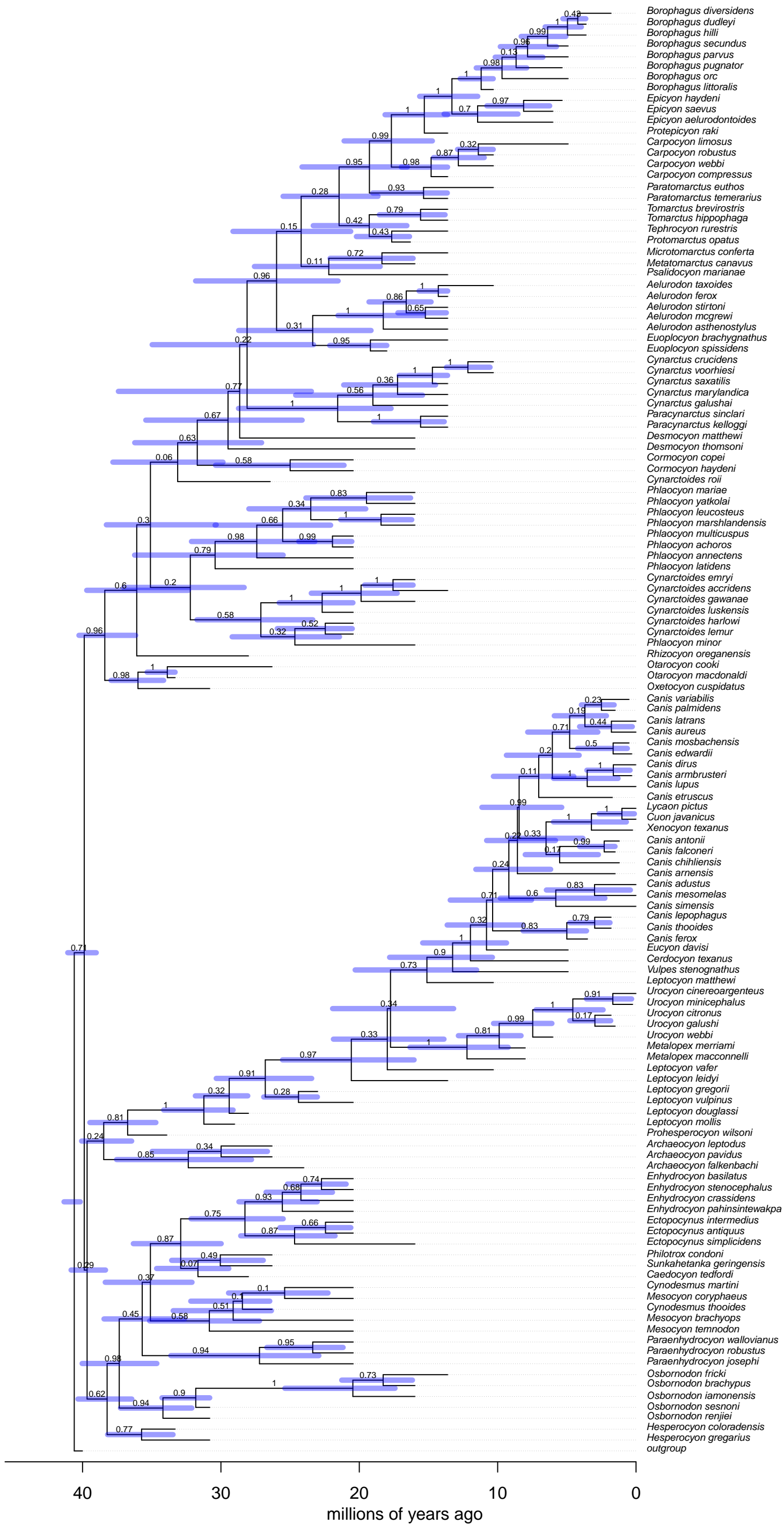
8: mb3.2.5_mb5_orig



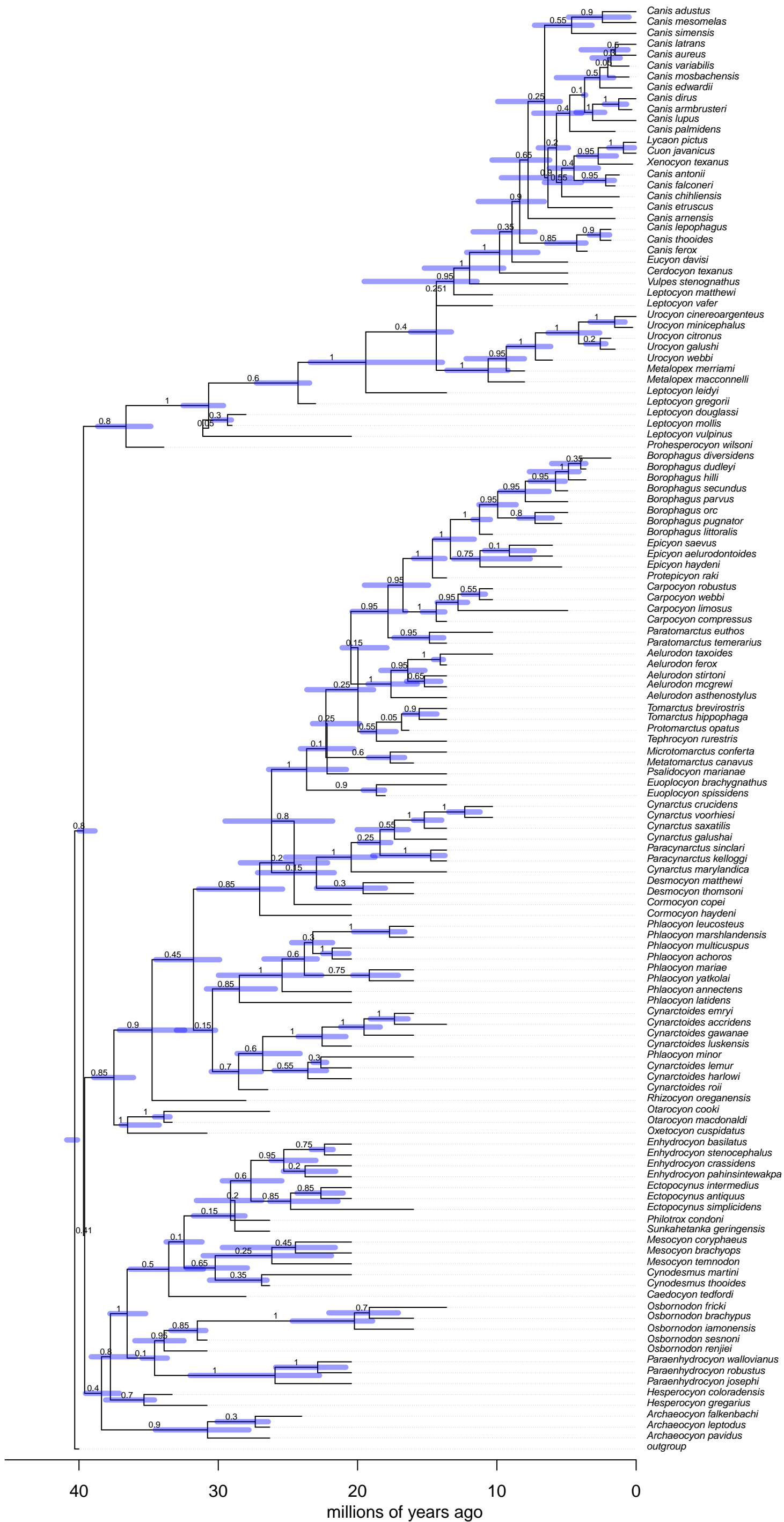
9: mb3.2.5_mb6_orig



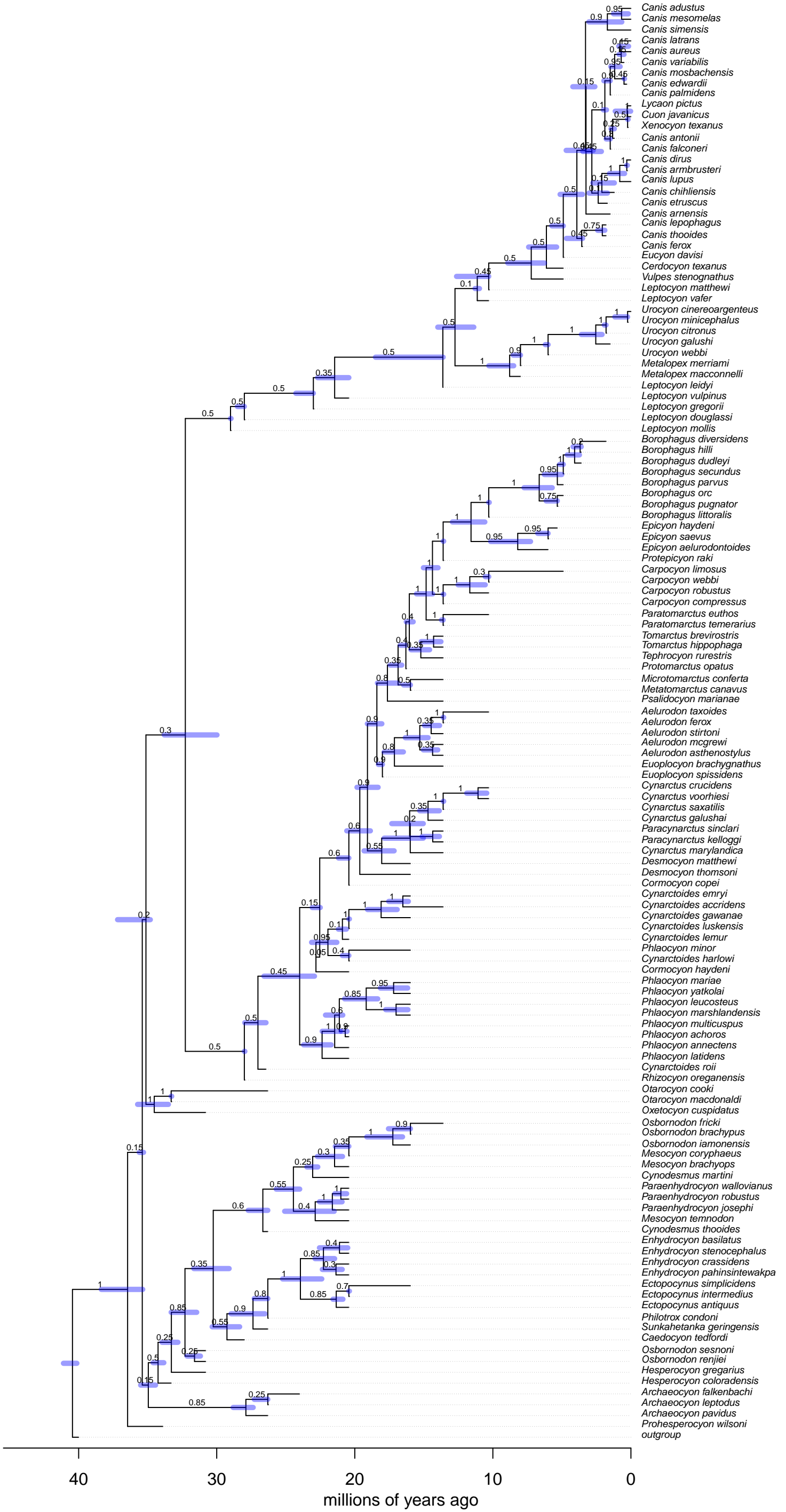
10: mb3.25_mb7_orig



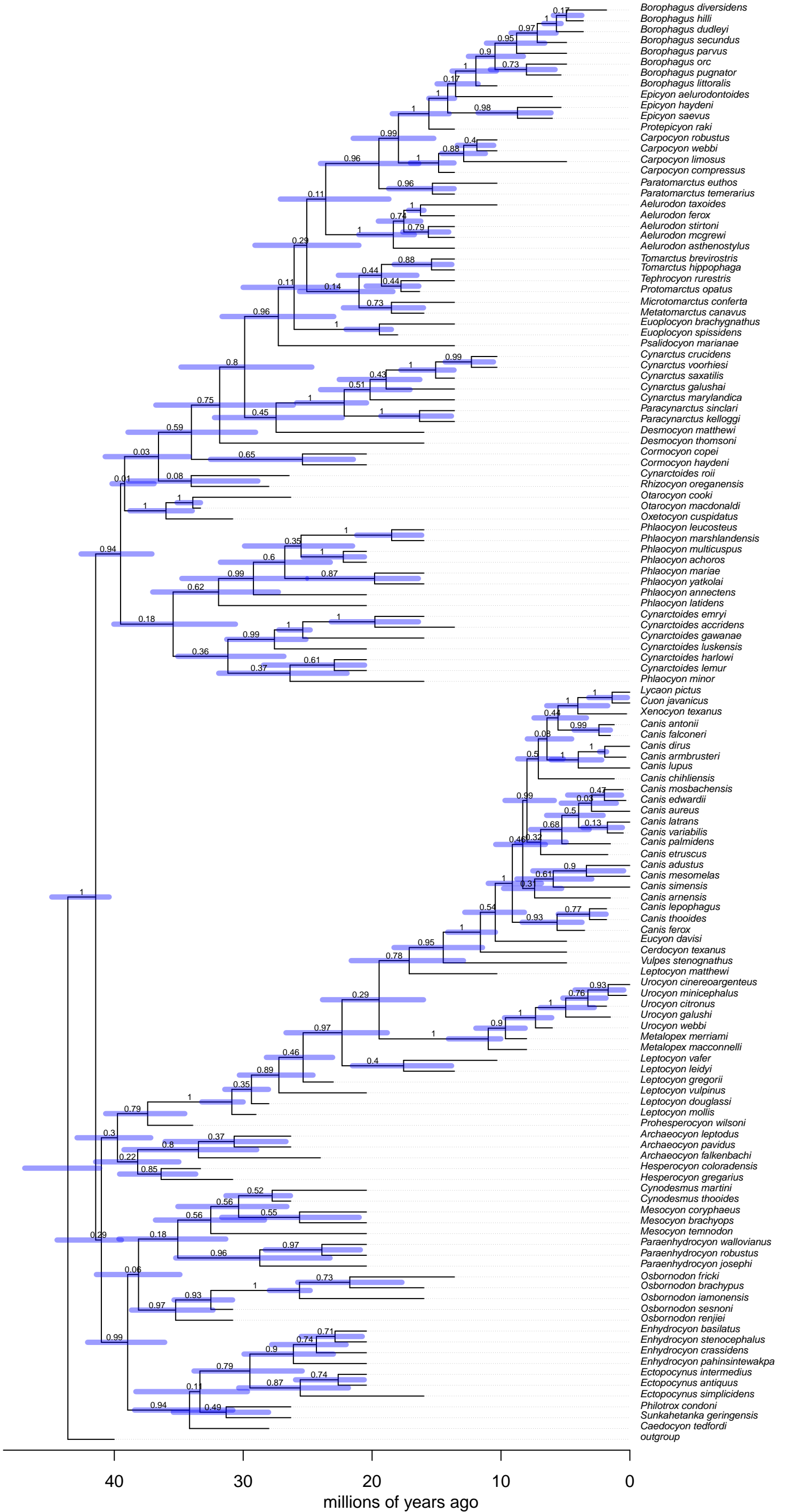
11: mb3.2.5_mb8_orig



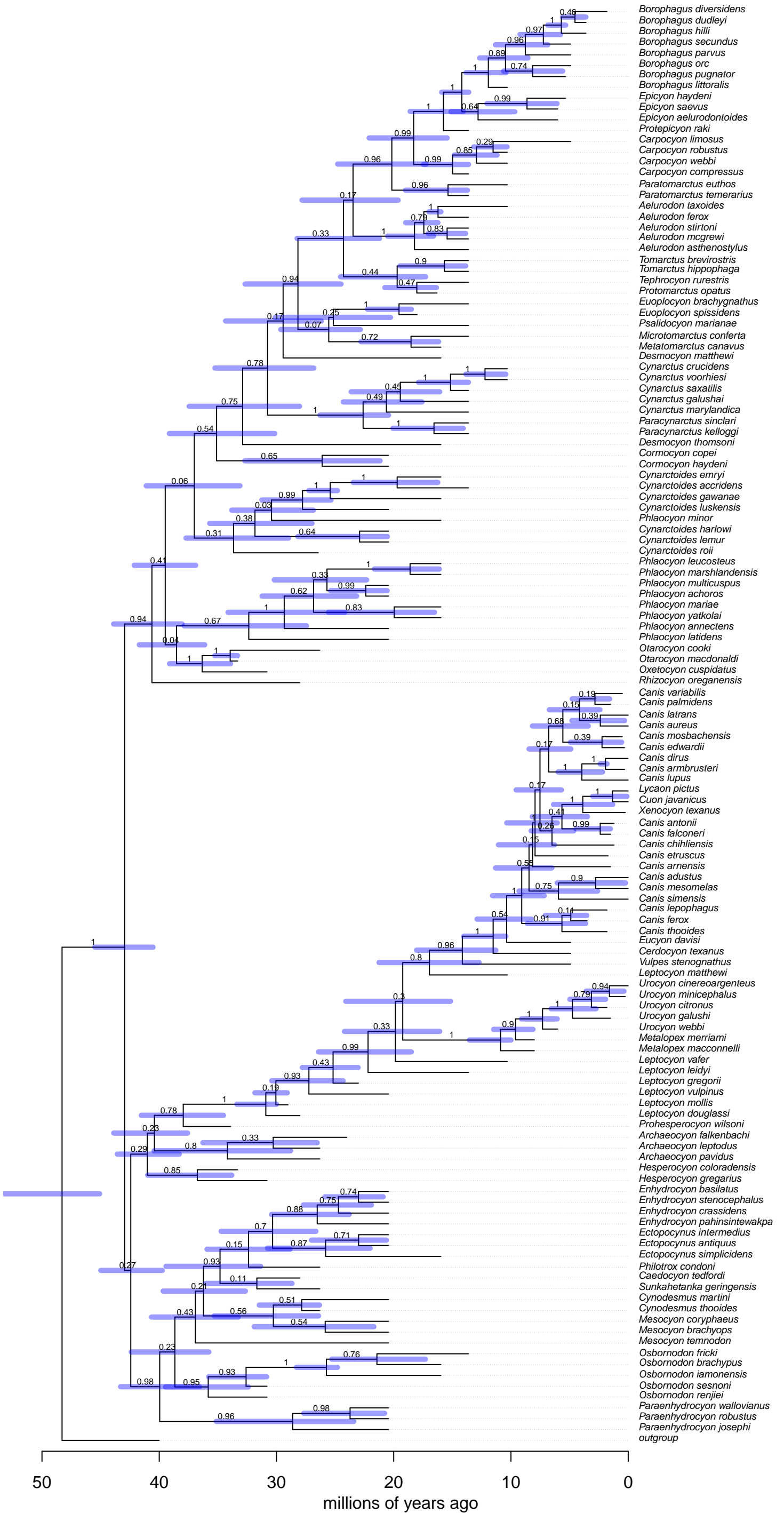
12: mb3.2.5_mb9_orig



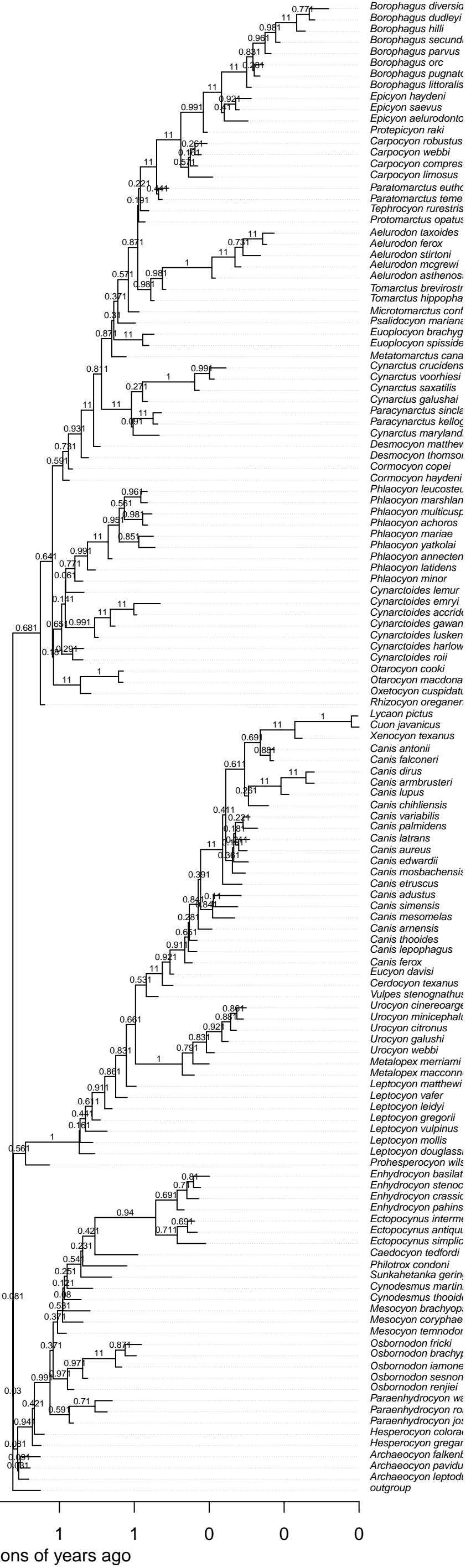
13: mb3.2.5_mb1_root_unif



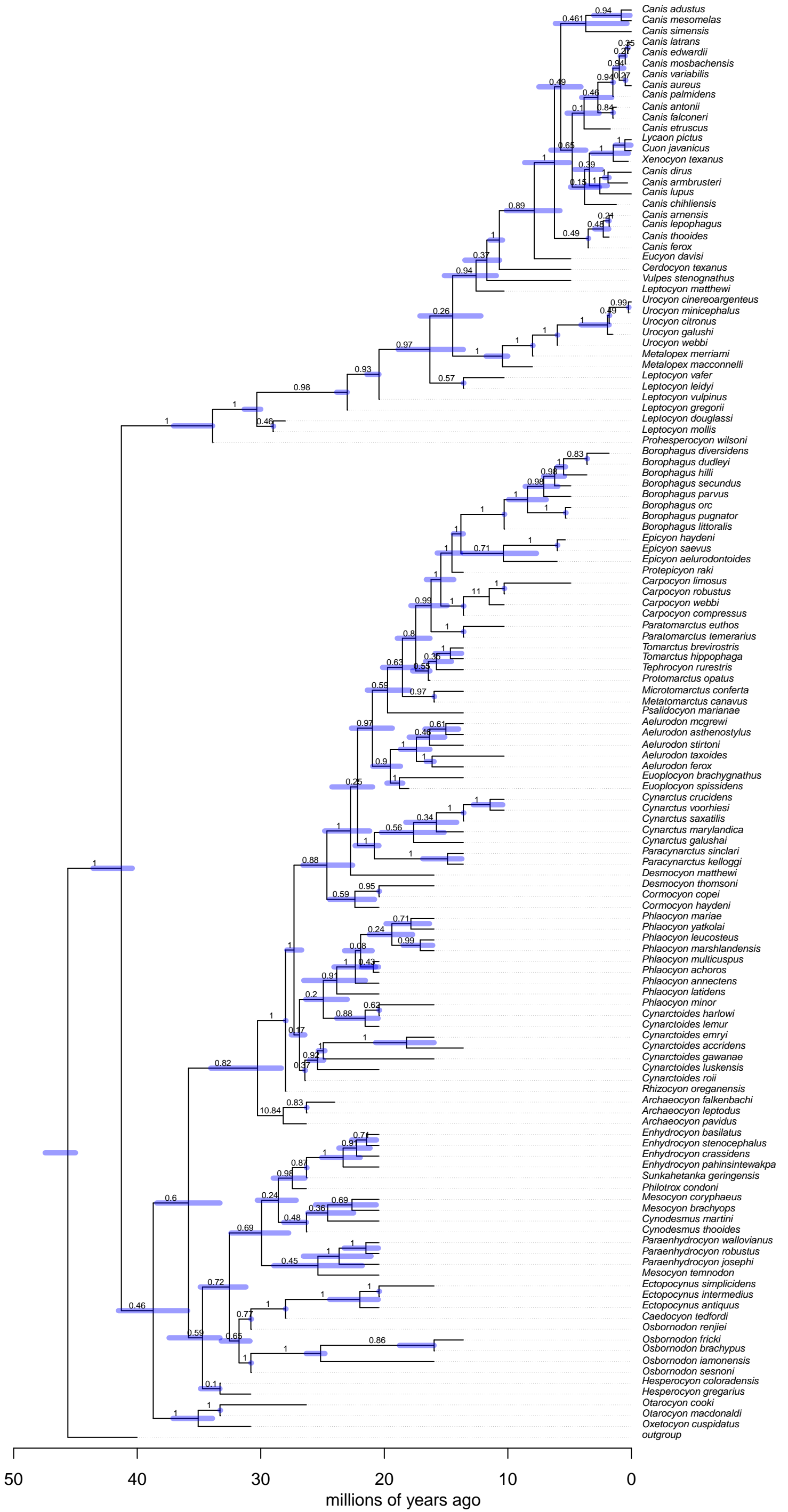
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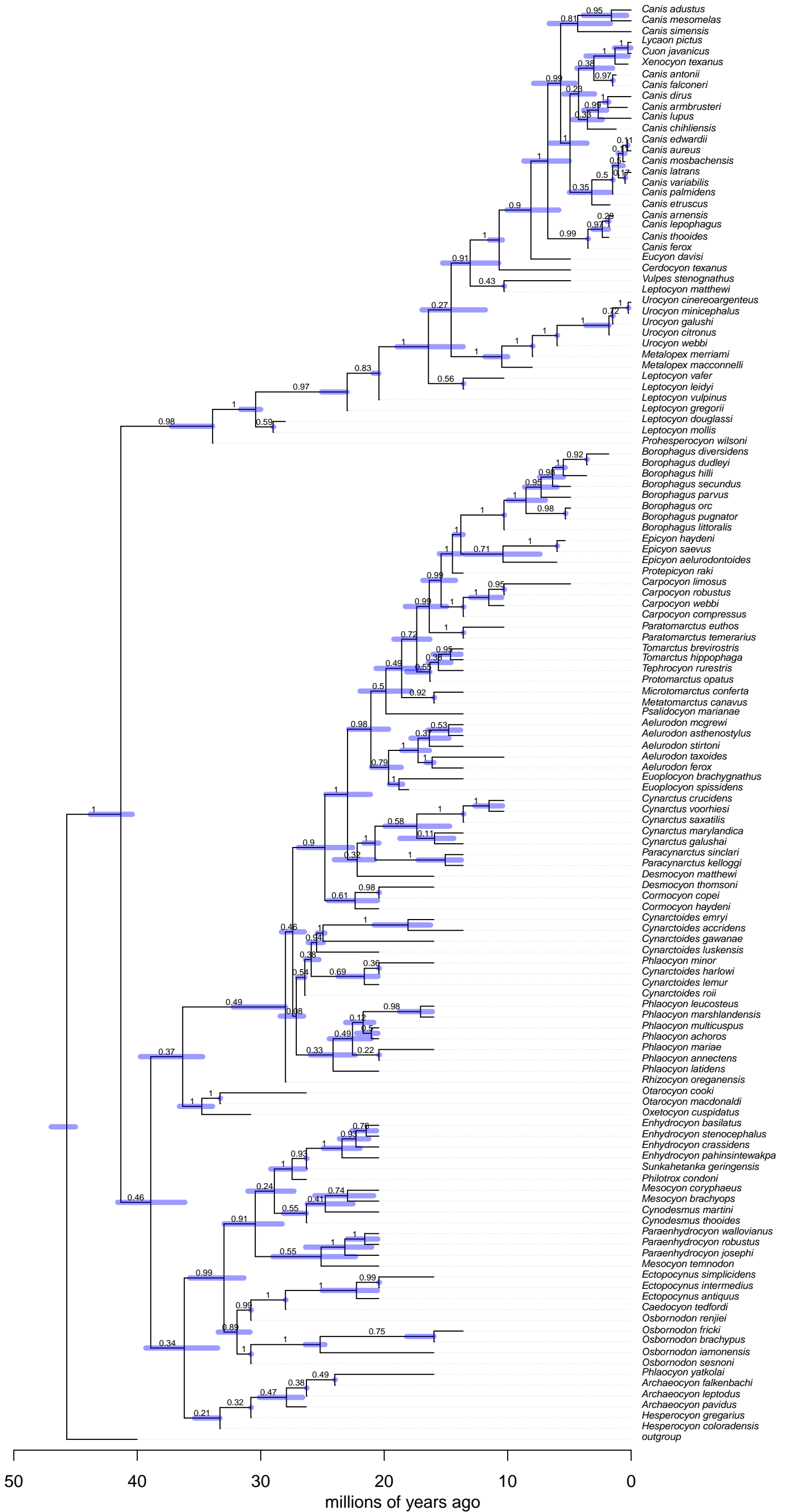
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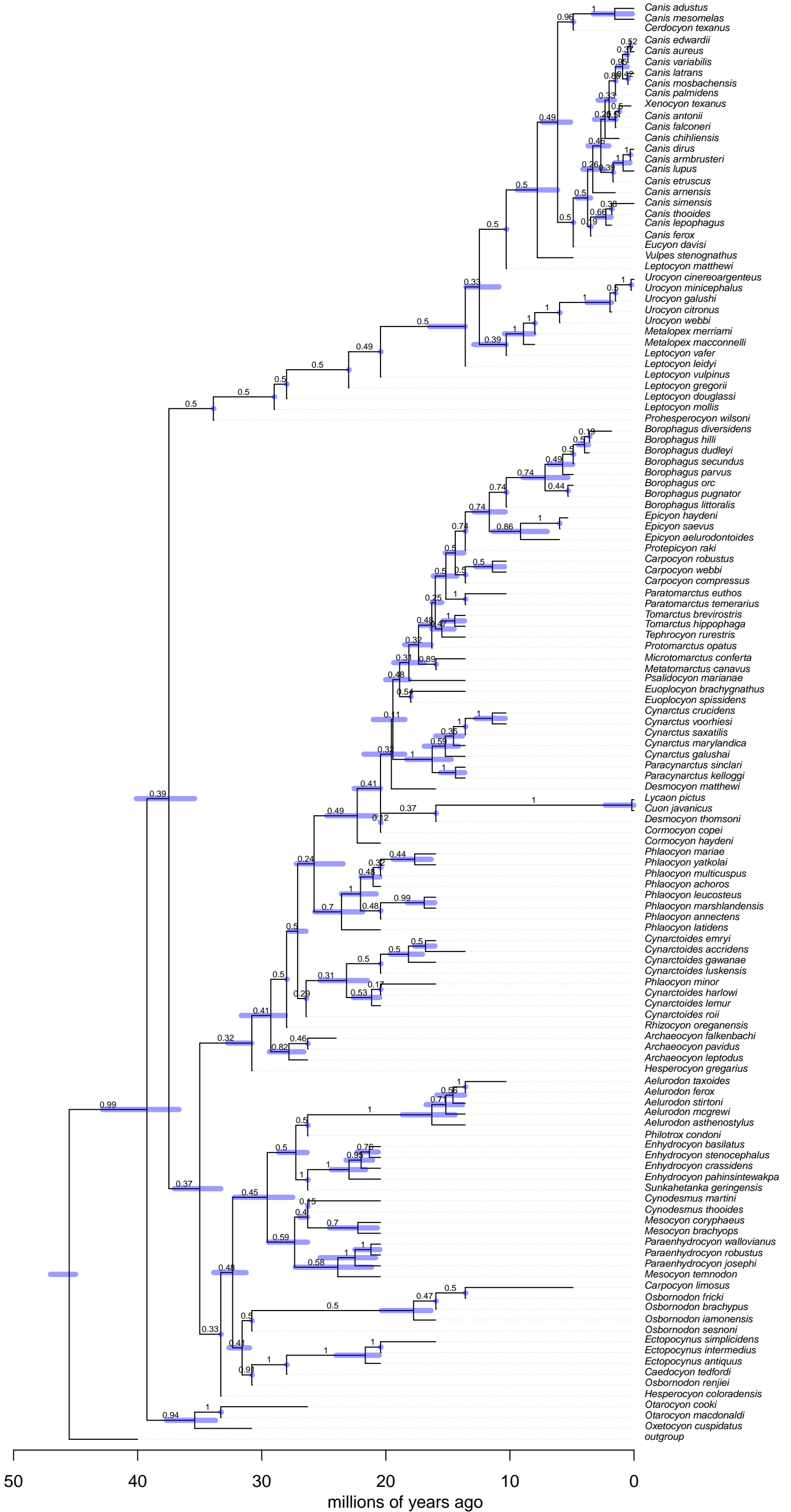
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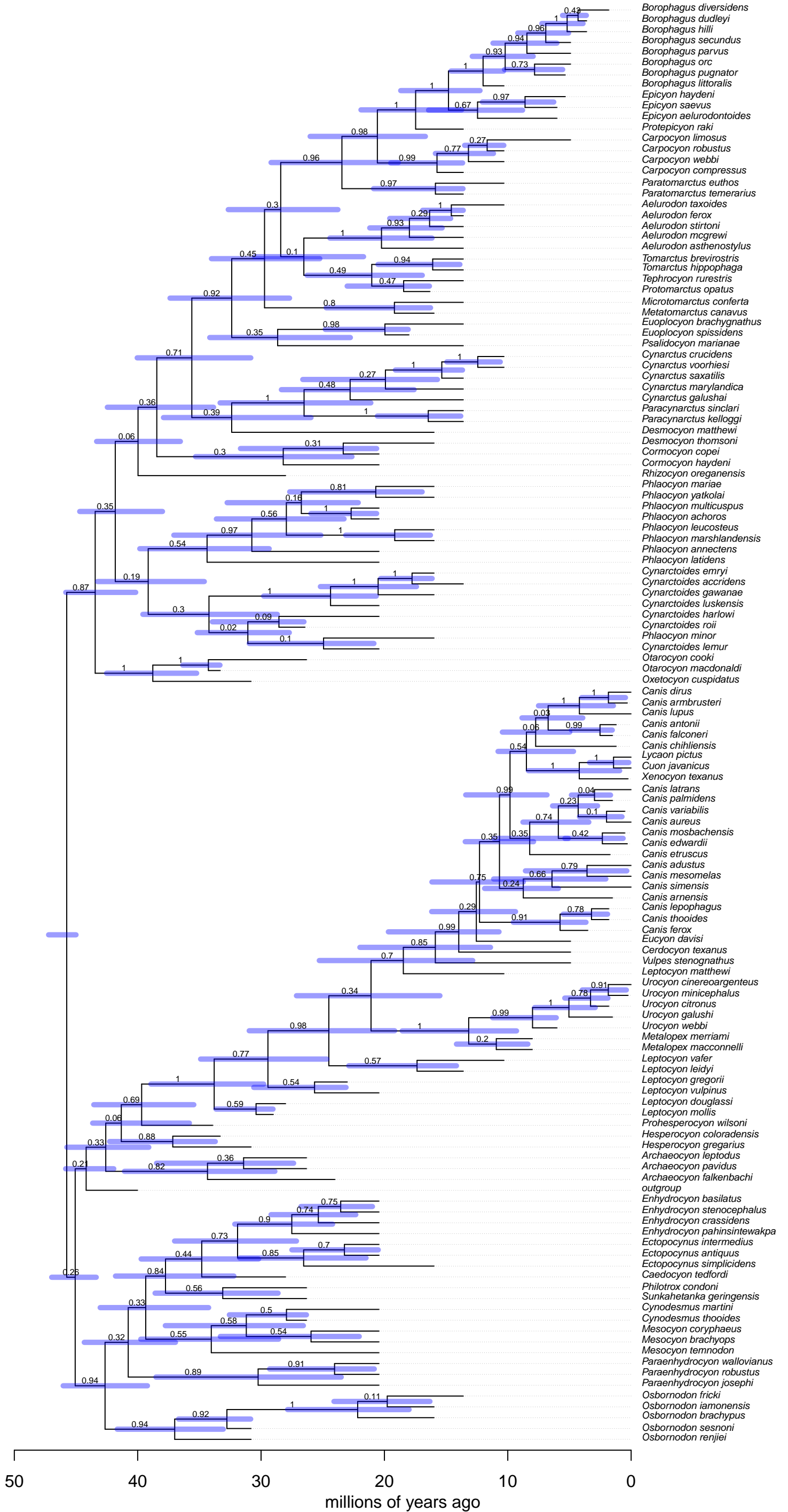
17: mb3.2.5_mb4_root_unif



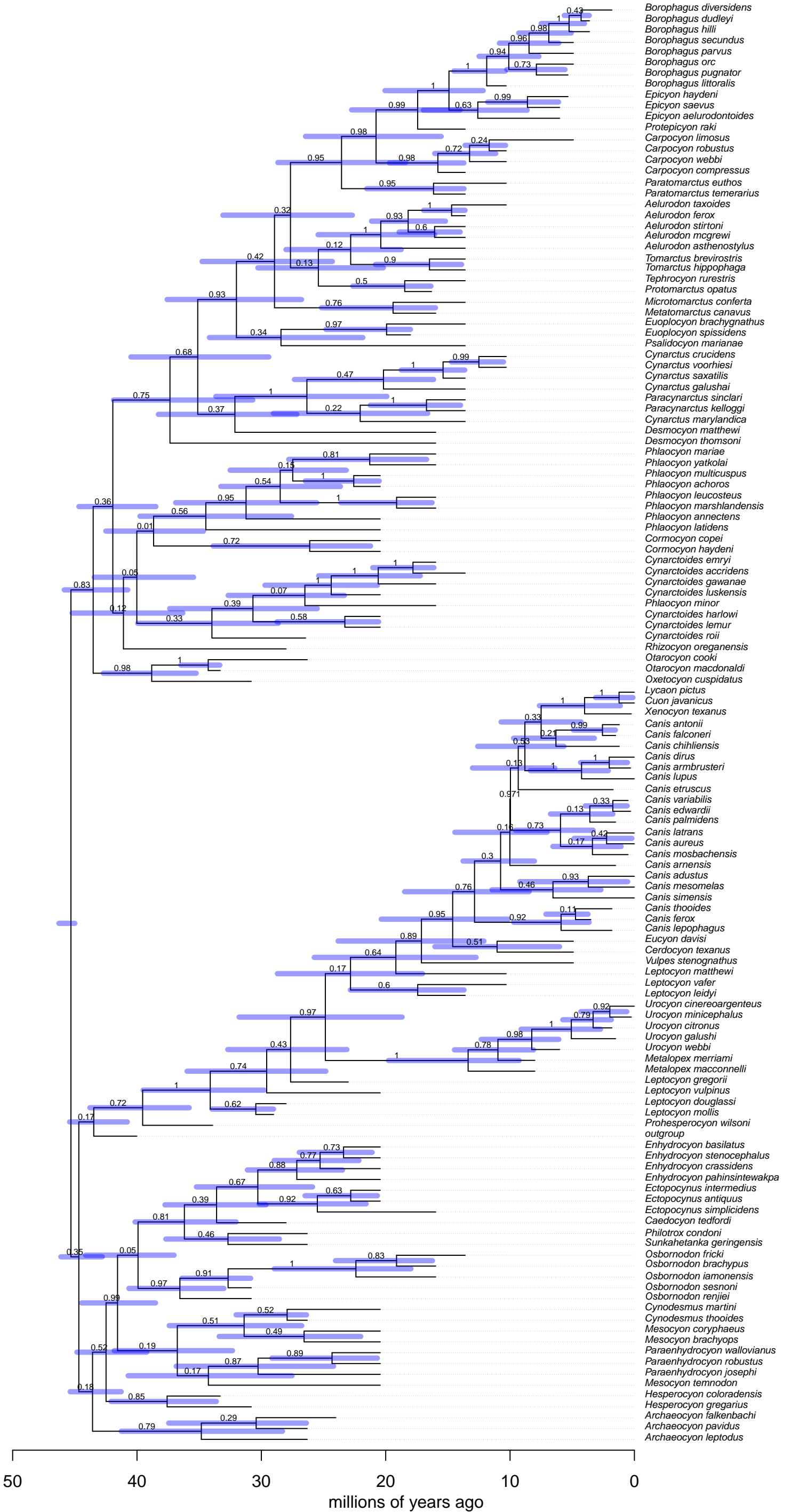
18: mb3.2.5_mb5_root_unif



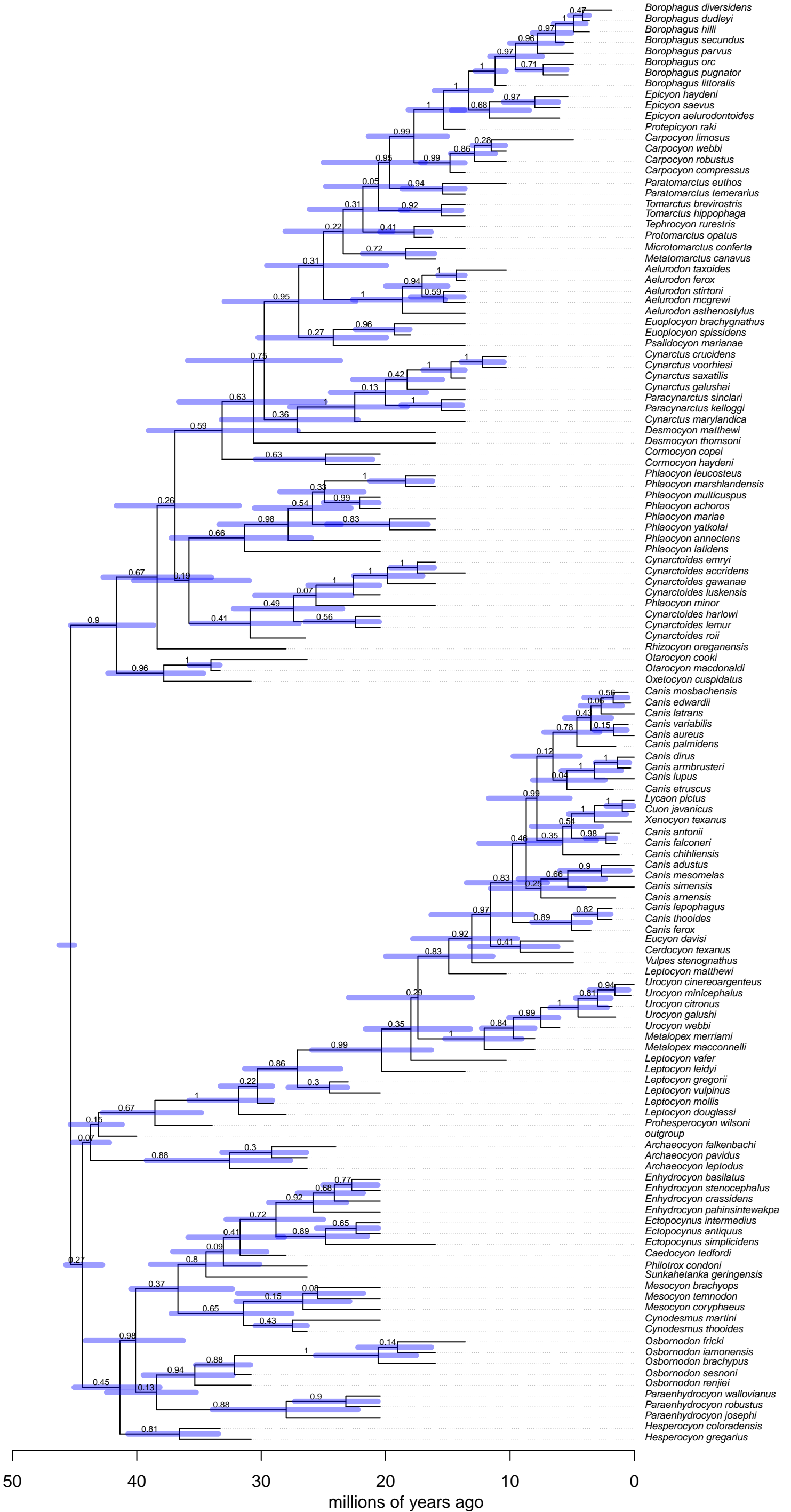
19: mb3.2.5_mb6_root_unif



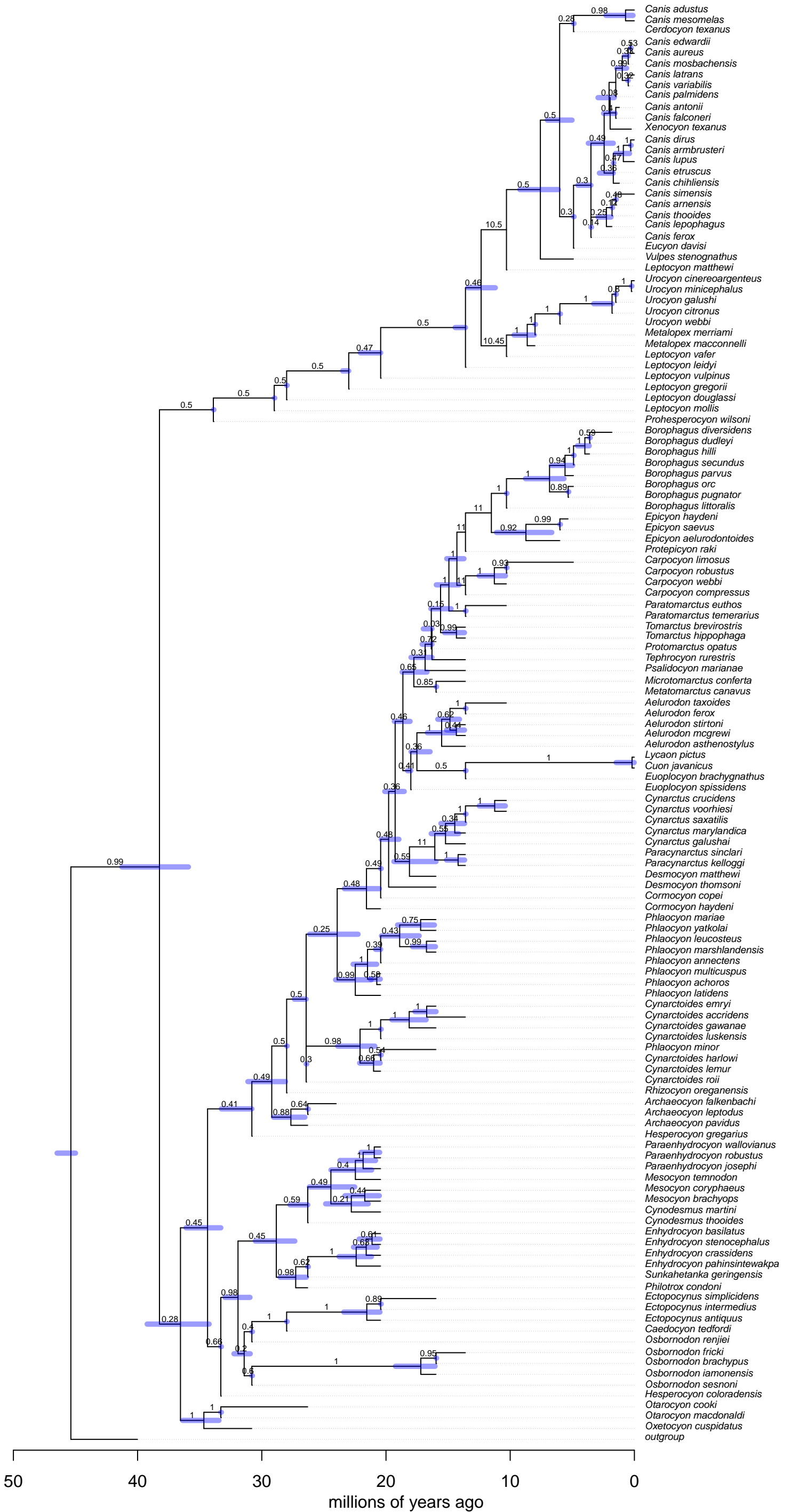
20: mb3.2.5_mb7_root_unif



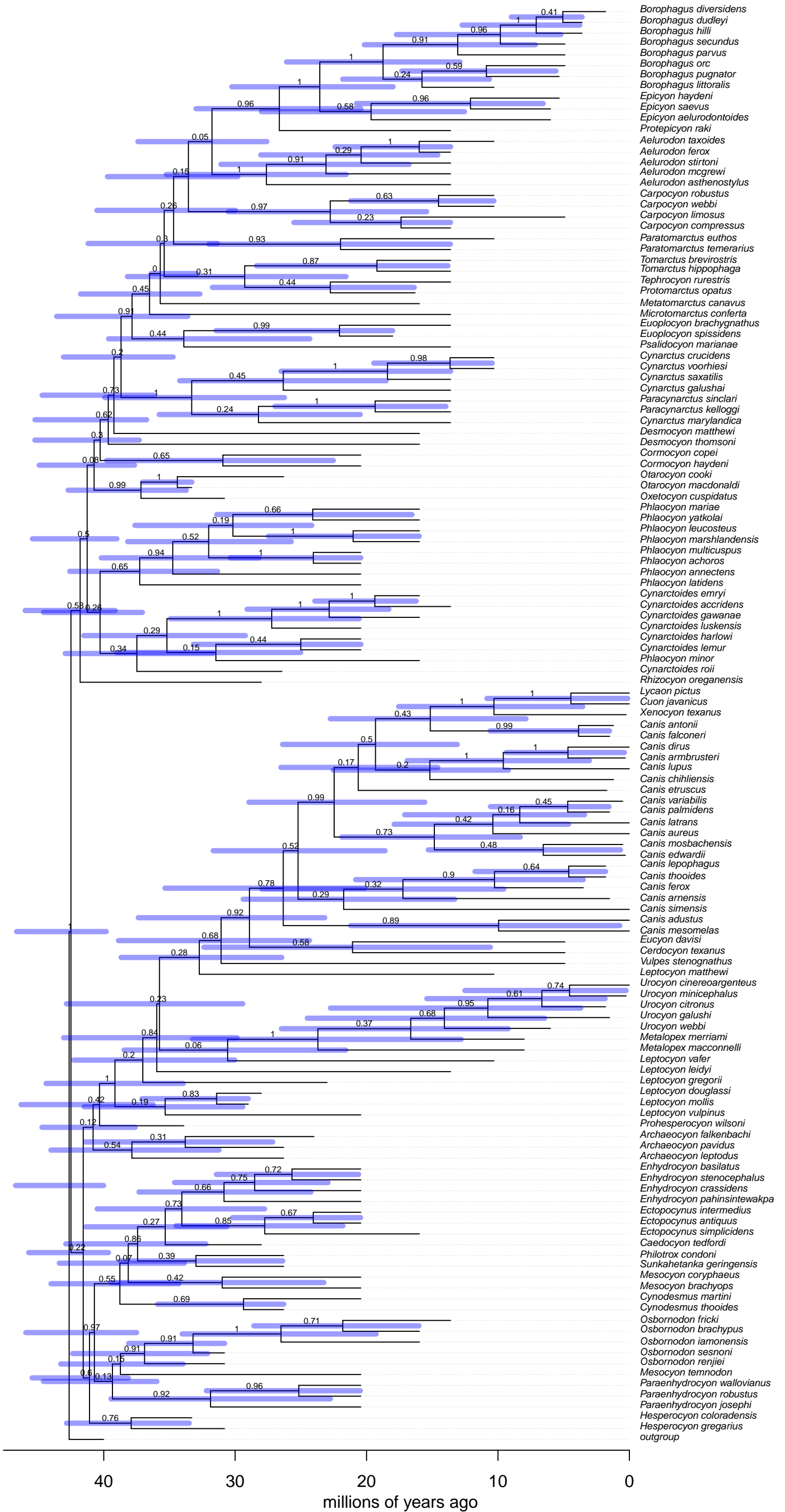
21: mb3.2.5_mb8_root_unif



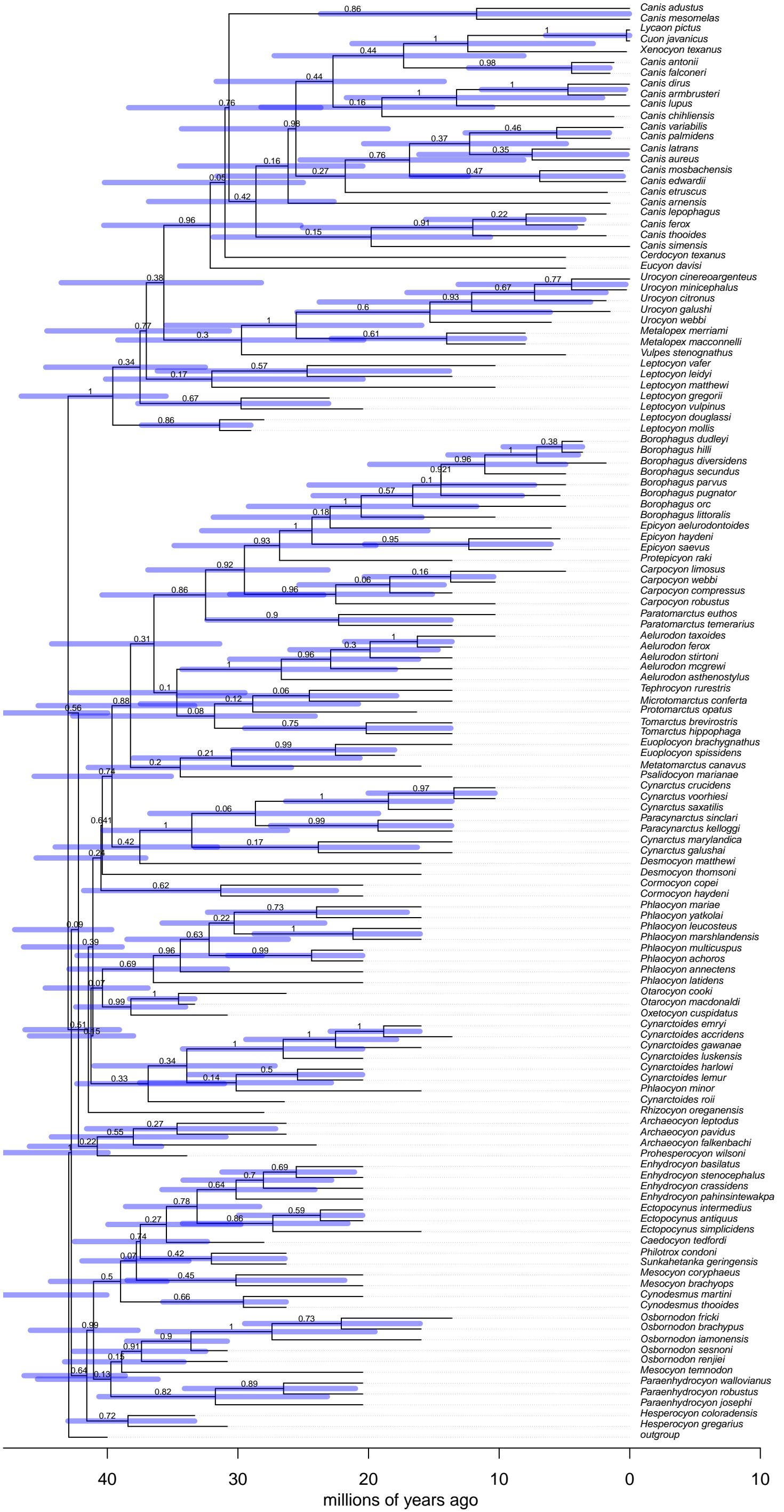
22: mb3.2.5_mb9_root_unif



23: mb3.2.0_mb6



24: mb3.2.0_mb7

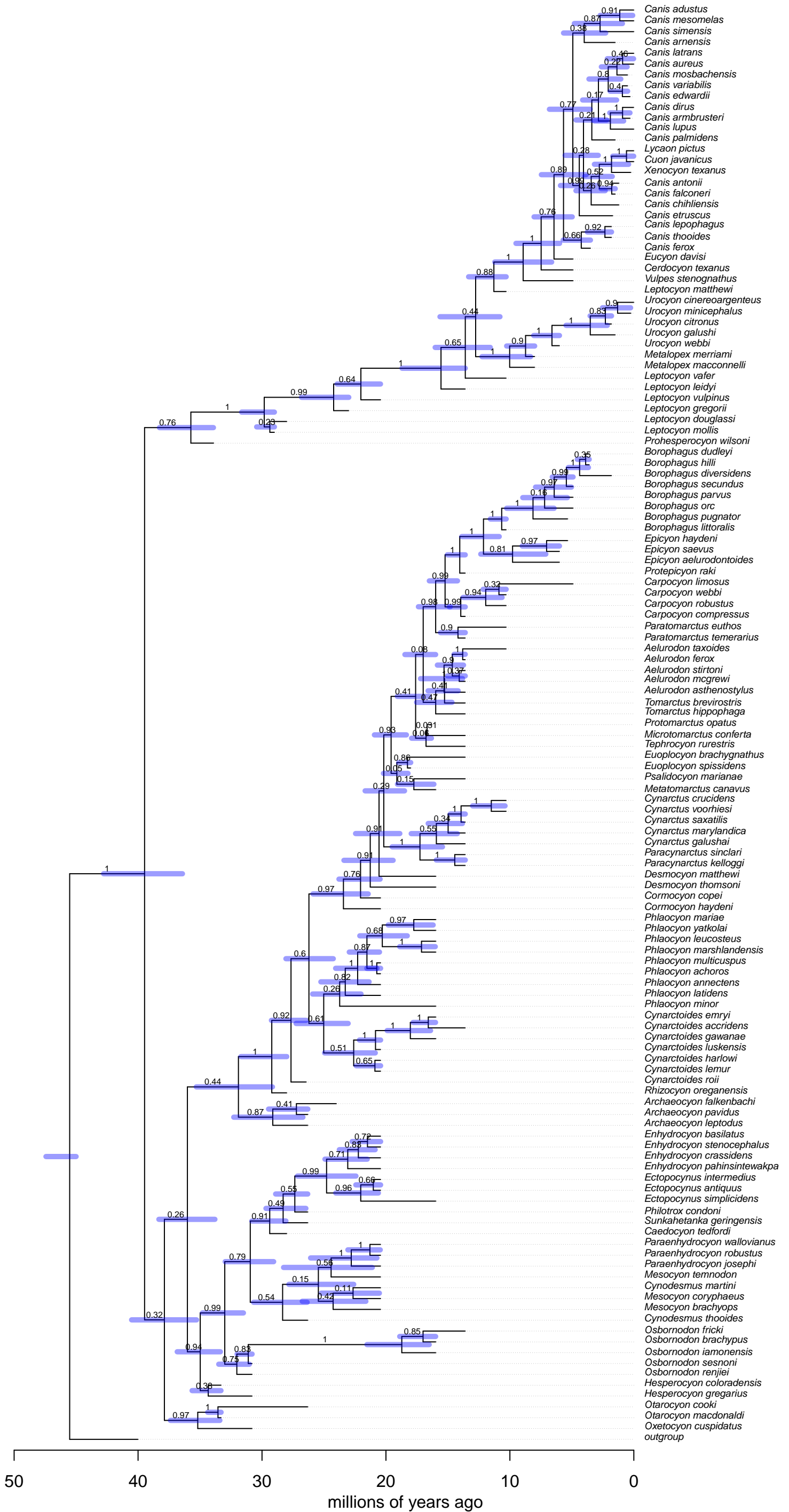


25: mb3.2.0_mb8

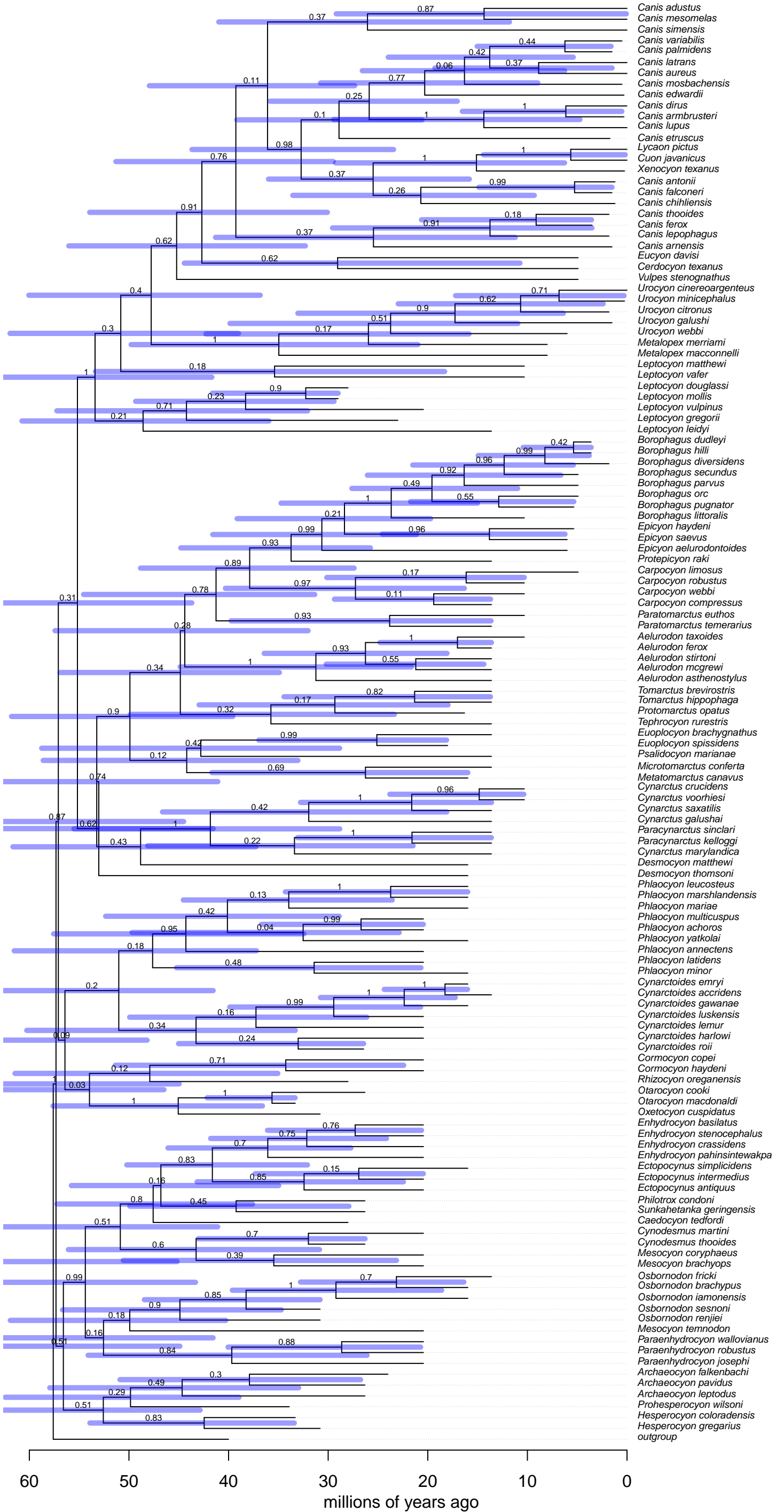


- Borophagus diversidens*
- Borophagus dudleyi*
- Borophagus hillei*
- Borophagus secundus*
- Borophagus parvus*
- Borophagus orc*
- Borophagus pugnator*
- Borophagus littoralis*
- Epicyon haydeni*
- Epicyon saevus*
- Epicyon aelurodontoides*
- Protepicyon raki*
- Carpocyon limosus*
- Carpocyon webbi*
- Carpocyon robustus*
- Carpocyon compressus*
- Paratomarctus euthos*
- Paratomarctus temerarius*
- Tomarctus brevirostris*
- Tomarctus hippophaga*
- Tephrocyon rurestris*
- Protomarctus opatus*
- Microtomarctus conferta*
- Metatomarctus canavus*
- Aelurodon taxoides*
- Aelurodon ferax*
- Aelurodon stirtoni*
- Aelurodon mcgrewi*
- Aelurodon asthenostylus*
- Euoplocyon brachygnathus*
- Euoplocyon spissidens*
- Psilidocyon marianae*
- Cynarctus crucidens*
- Cynarctus voorhiesi*
- Cynarctus saxatilis*
- Cynarctus galushai*
- Paracynarctus sinclari*
- Paracynarctus kelloggi*
- Cynarctus marylandica*
- Desmocyon matthewi*
- Desmocyon thomsoni*
- Cormocyon copei*
- Cormocyon haydeni*
- Phlaocyon leucosteus*
- Phlaocyon marshlandensis*
- Phlaocyon multicuspus*
- Phlaocyon achoros*
- Phlaocyon mariae*
- Phlaocyon yatkolai*
- Phlaocyon annectens*
- Phlaocyon latidens*
- Cynarctoides emryi*
- Cynarctoides accridens*
- Cynarctoides gawanae*
- Cynarctoides luskensis*
- Cynarctoides harlowi*
- Cynarctoides lemur*
- Phlaocyon minor*
- Cynarctoides roii*
- Otarocyon cooki*
- Otarocyon macdonaldi*
- Oxetocyon cuspidatus*
- Rhizocyon oregonensis*
- Canis variabilis*
- Canis aureus*
- Canis latrans*
- Canis palmidens*
- Canis mosbachensis*
- Canis edwardii*
- Canis etruscus*
- Lycaon pictus*
- Cuon javanicus*
- Xenocyon texanus*
- Canis dirus*
- Canis armbrusteri*
- Canis lupus*
- Canis antonii*
- Canis falconeri*
- Canis chihliensis*
- Canis simensis*
- Canis arnensis*
- Canis adustus*
- Canis mesomelas*
- Canis lepophagus*
- Canis thoooides*
- Canis ferax*
- Eucyon davisii*
- Cerdocyon texanus*
- Vulpes stenognathus*
- Leptocyon matthewi*
- Urocyon cinereoargenteus*
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- Urocyon citronus*
- Urocyon galushi*
- Urocyon webbi*
- Metalopex merriami*
- Metalopex macconnelli*
- Leptocyon vafer*
- Leptocyon leidyii*
- Leptocyon gregorii*
- Leptocyon vulpinus*
- Leptocyon douglassii*
- Leptocyon mollis*
- Prohesperocyon wilsoni*
- Archaeocyon falkenbachi*
- Archaeocyon leptodus*
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- Enhydrocyon basilatus*
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- Enhydrocyon pahinsintewakpa*
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- Ectopocynus simplicidens*
- Philotrox condoni*
- Sunkahetanka geringensis*
- Caedocyon tedfordi*
- Cynodesmus martini*
- Cynodesmus thoooides*
- Mesocyon coryphaeus*
- Mesocyon brachyops*
- Paraenhydrocyon wallovianus*
- Paraenhydrocyon robustus*
- Paraenhydrocyon josephi*
- Mesocyon temnodon*
- Osbornodon fricki*
- Osbornodon brachypus*
- Osbornodon iamonsensis*
- Osbornodon sesnoni*
- Osbornodon renjieii*
- Hesperocyon coloradensis*
- Hesperocyon gregarius*
- outgroup

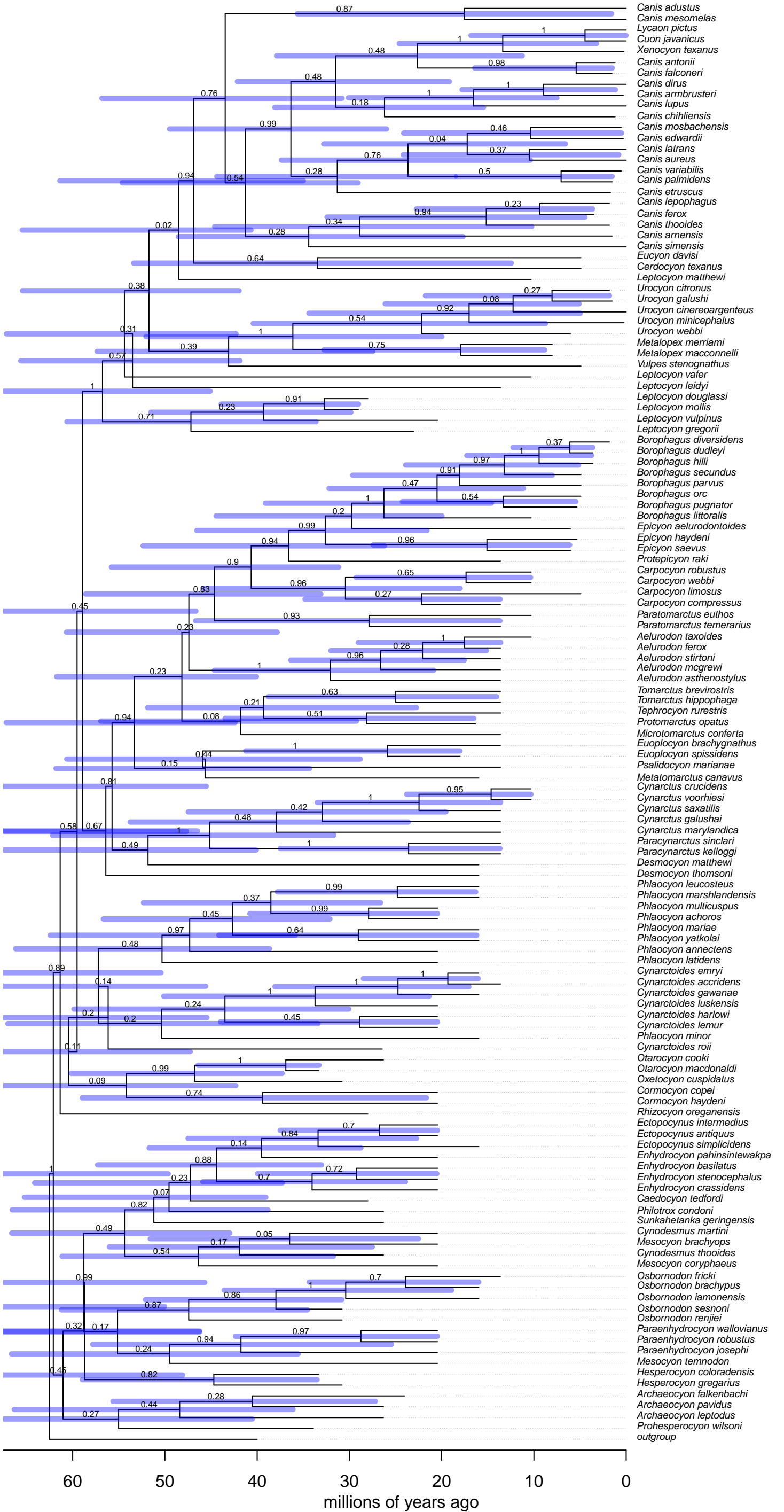
26: mb3.2.2_mb5



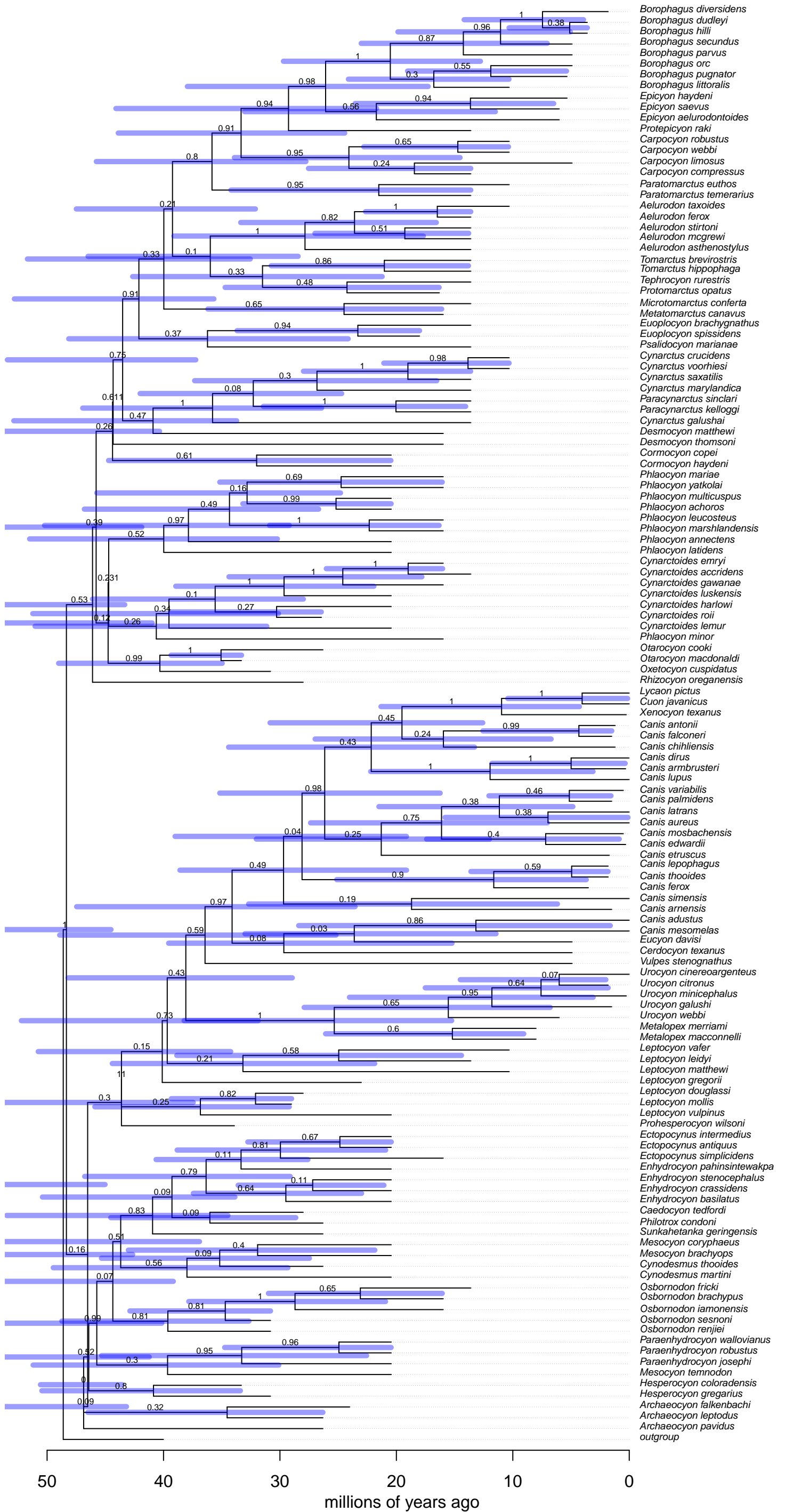
27: mb3.2.2_mb6



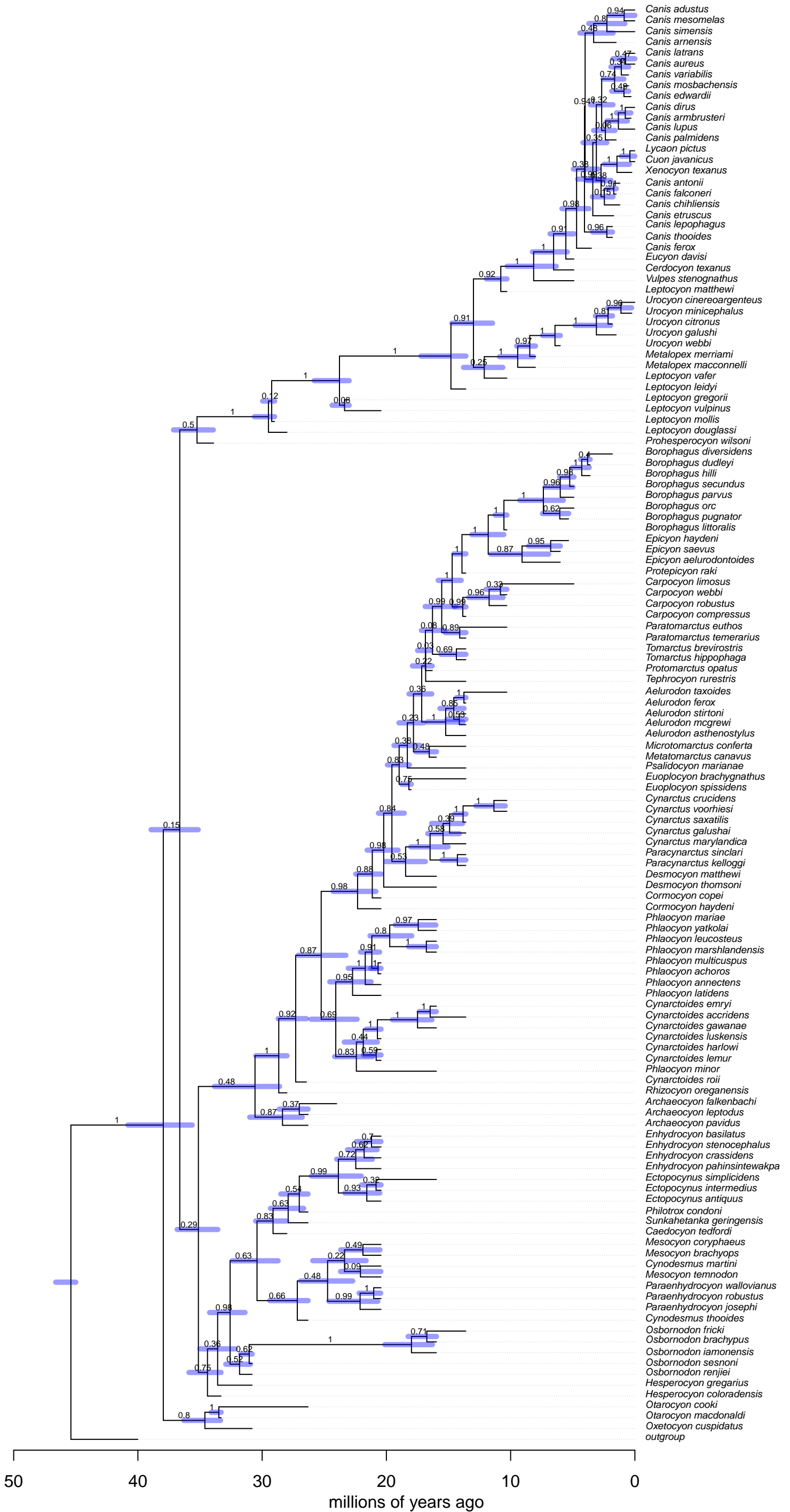
28: mb3.2.2_mb7



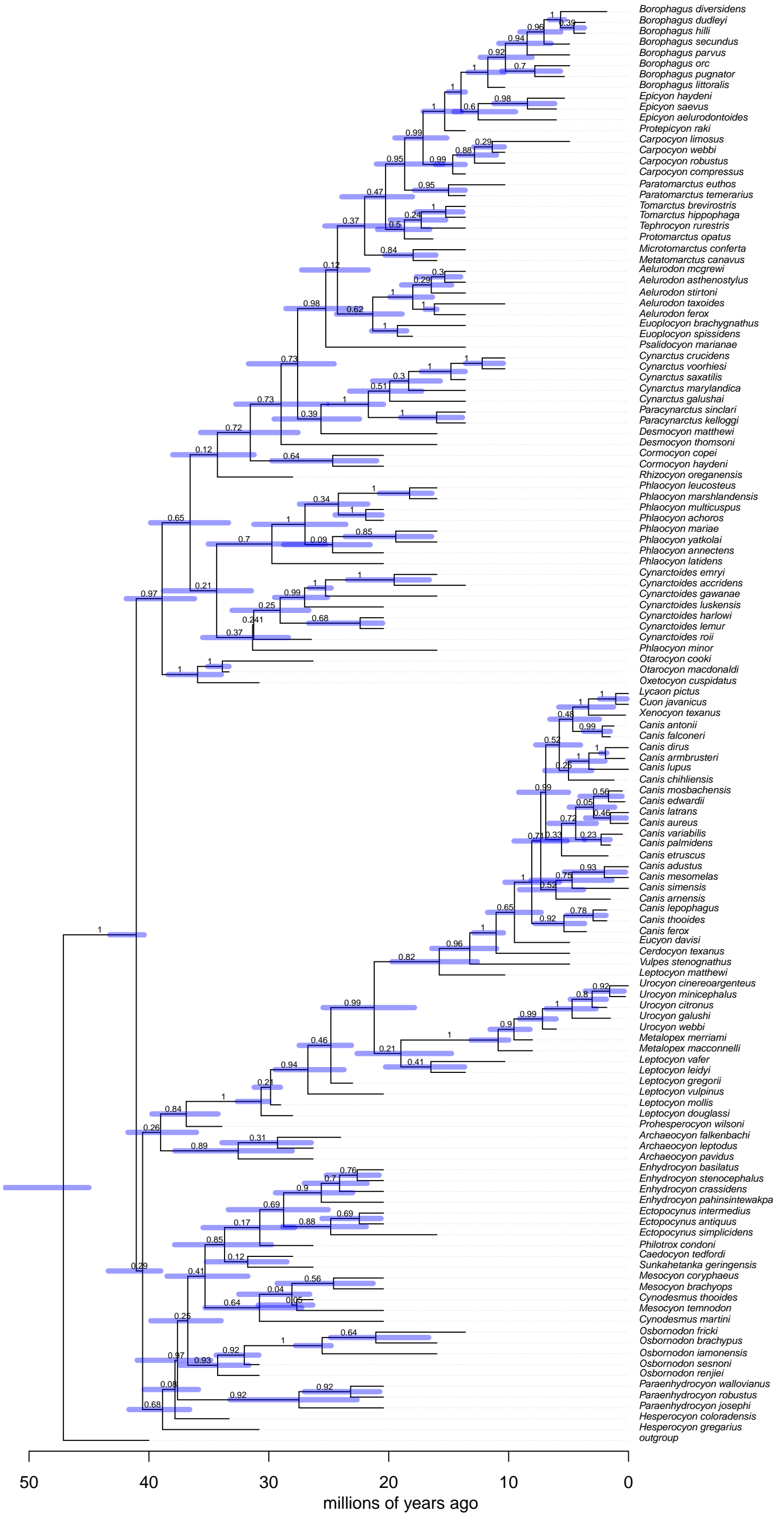
29: mb3.2.2_mb8



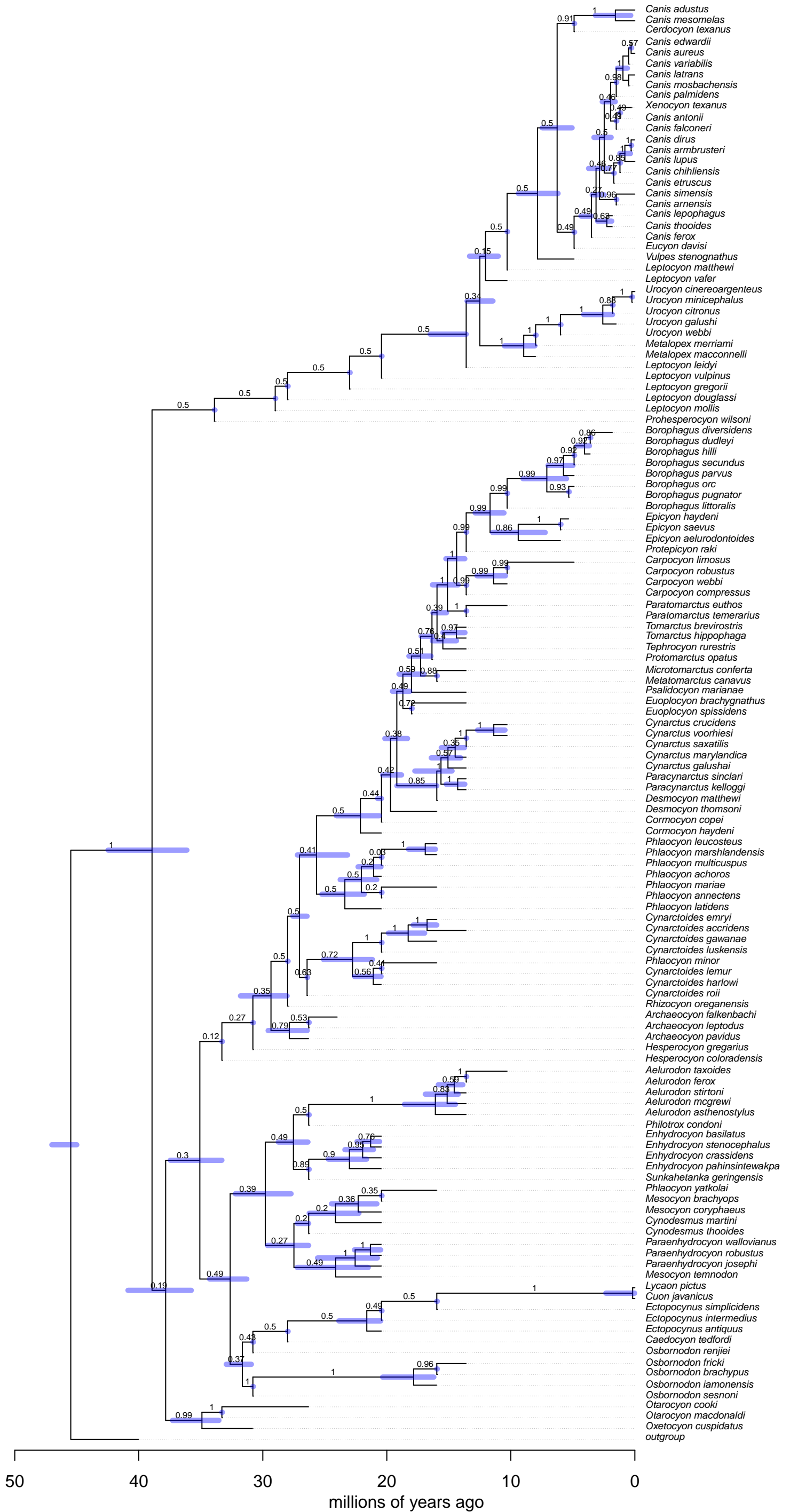
30: mb3.2.2_mb9



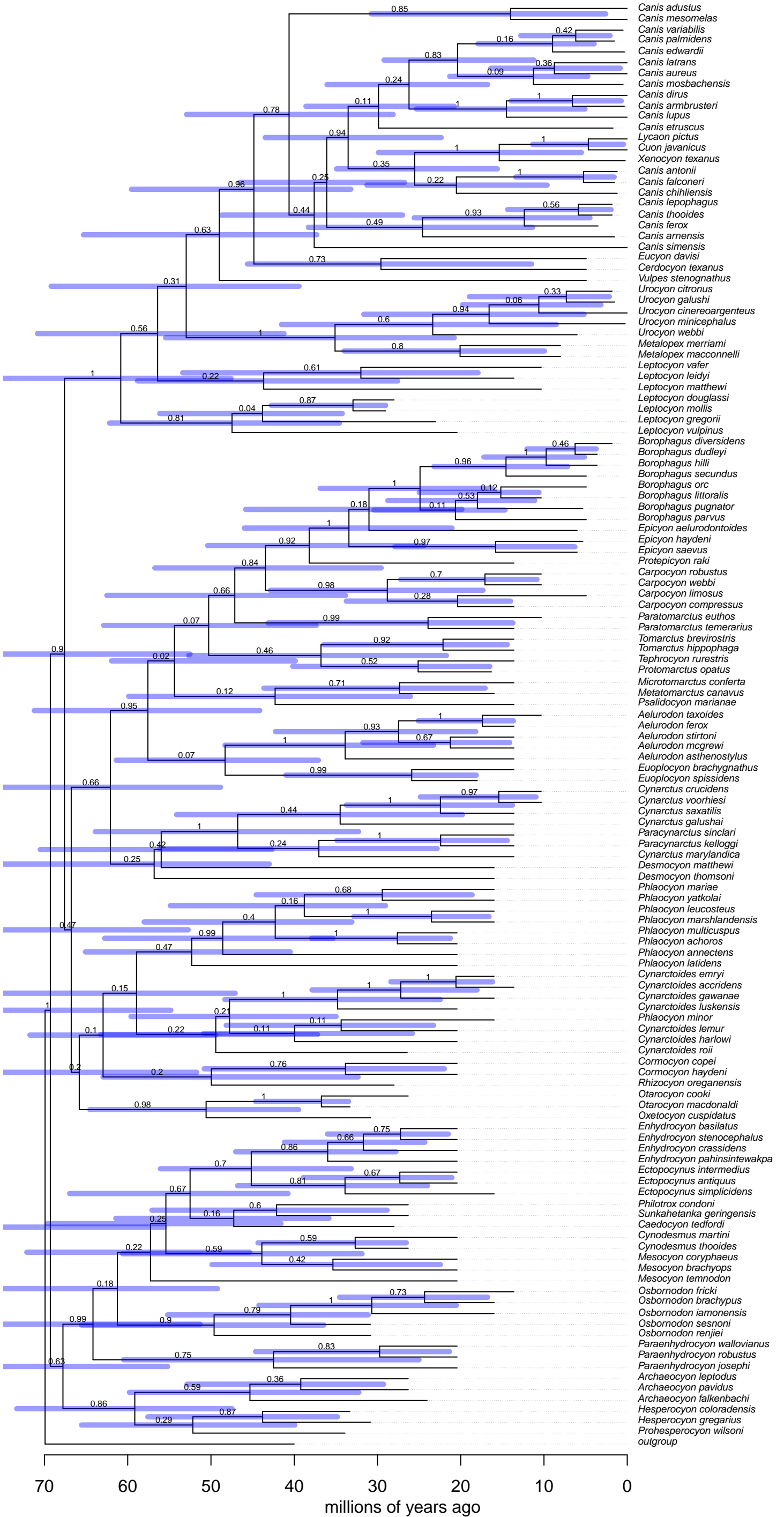
31: mb3.2.5_mb1



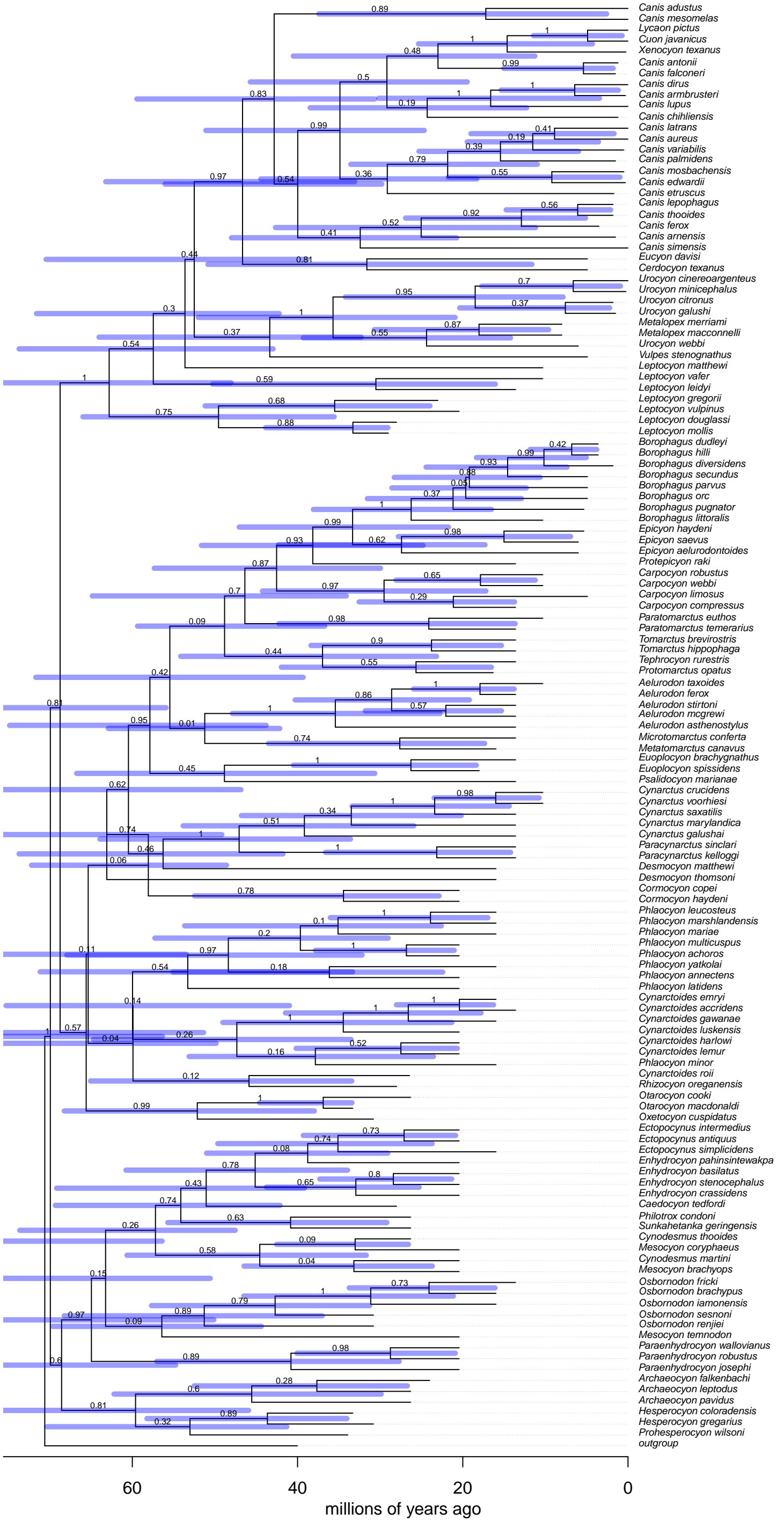
32: mb3.2.5_mb5



33: mb3.2.5_mb6



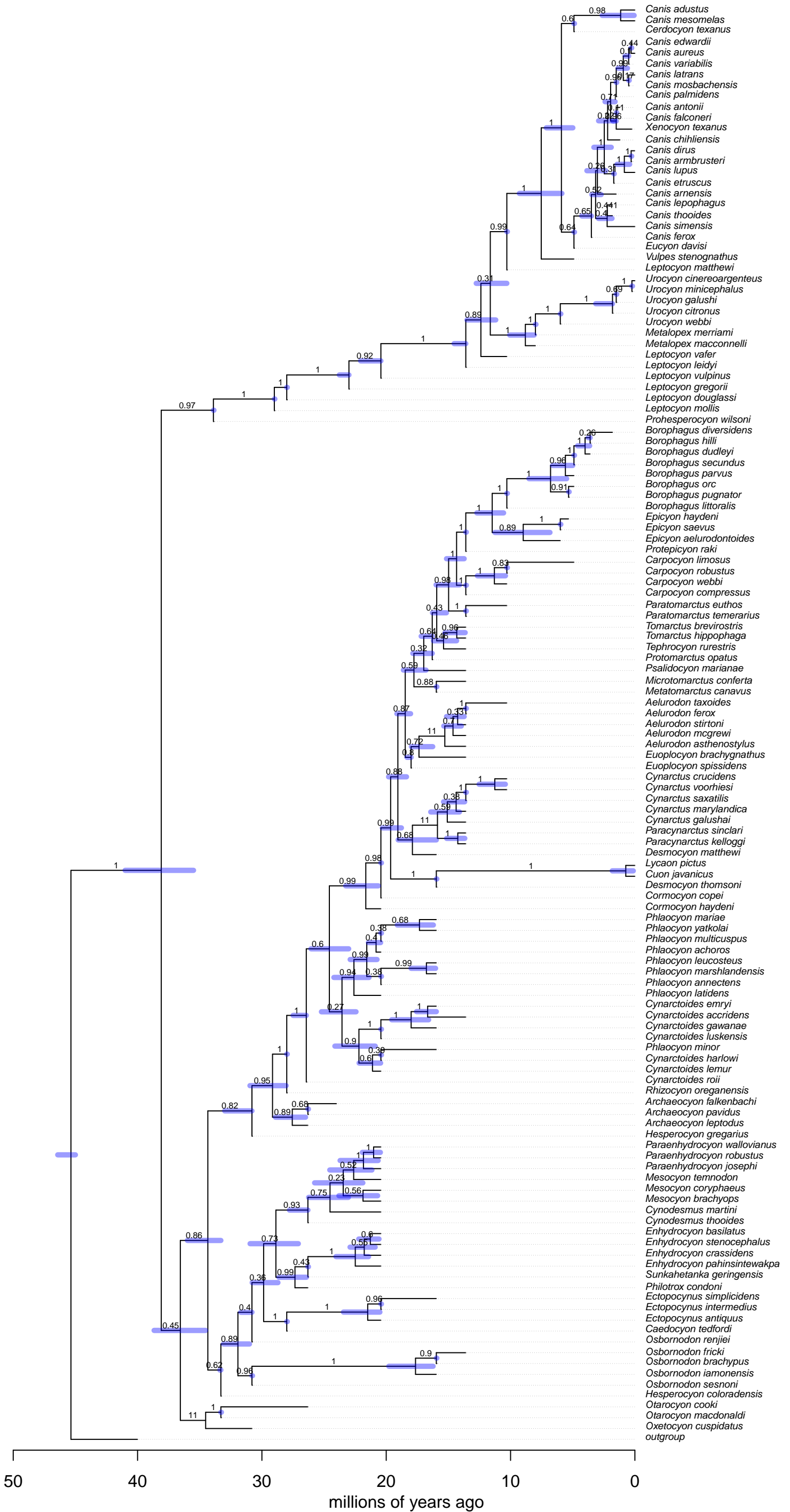
34: mb3.2.5_mb7



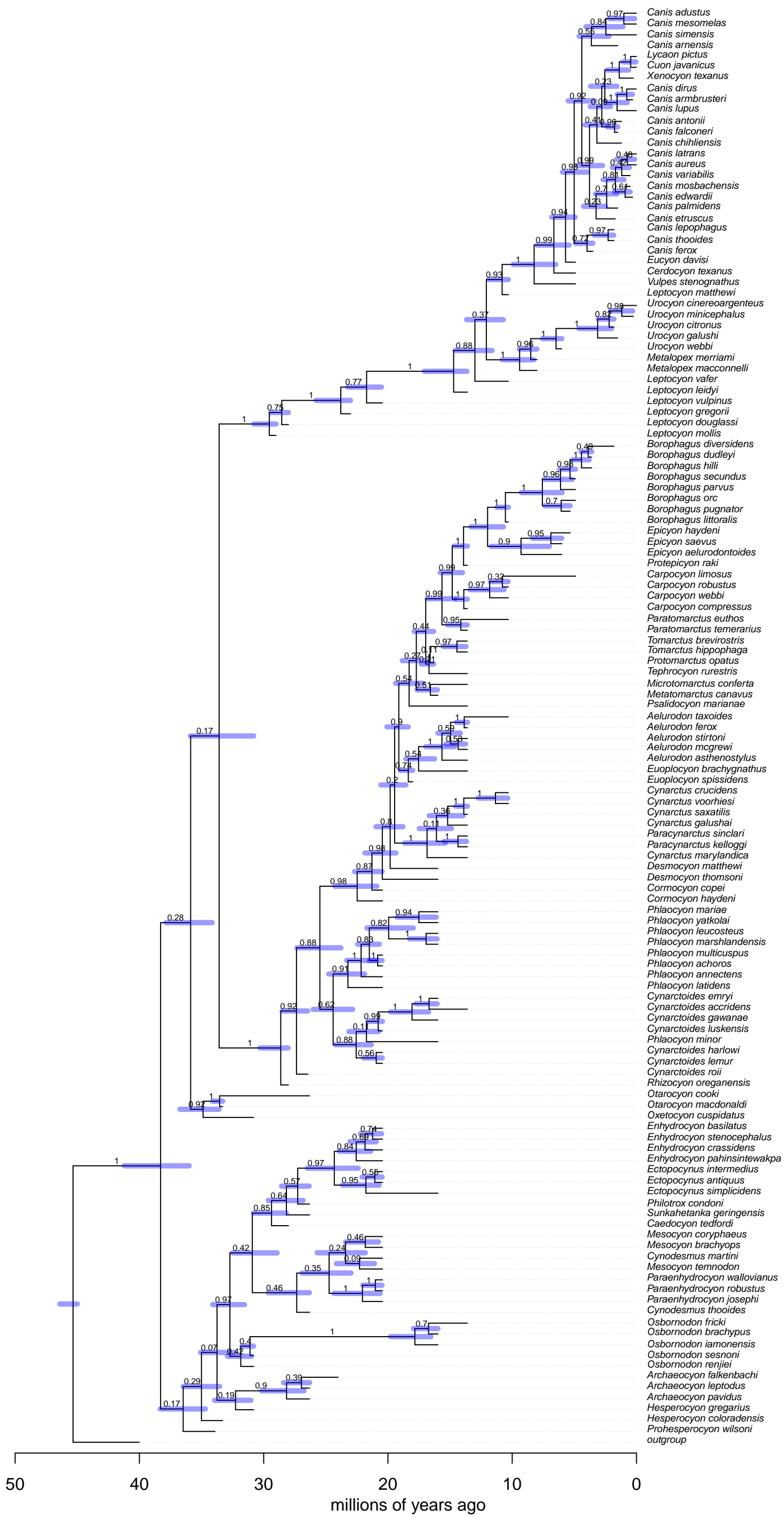
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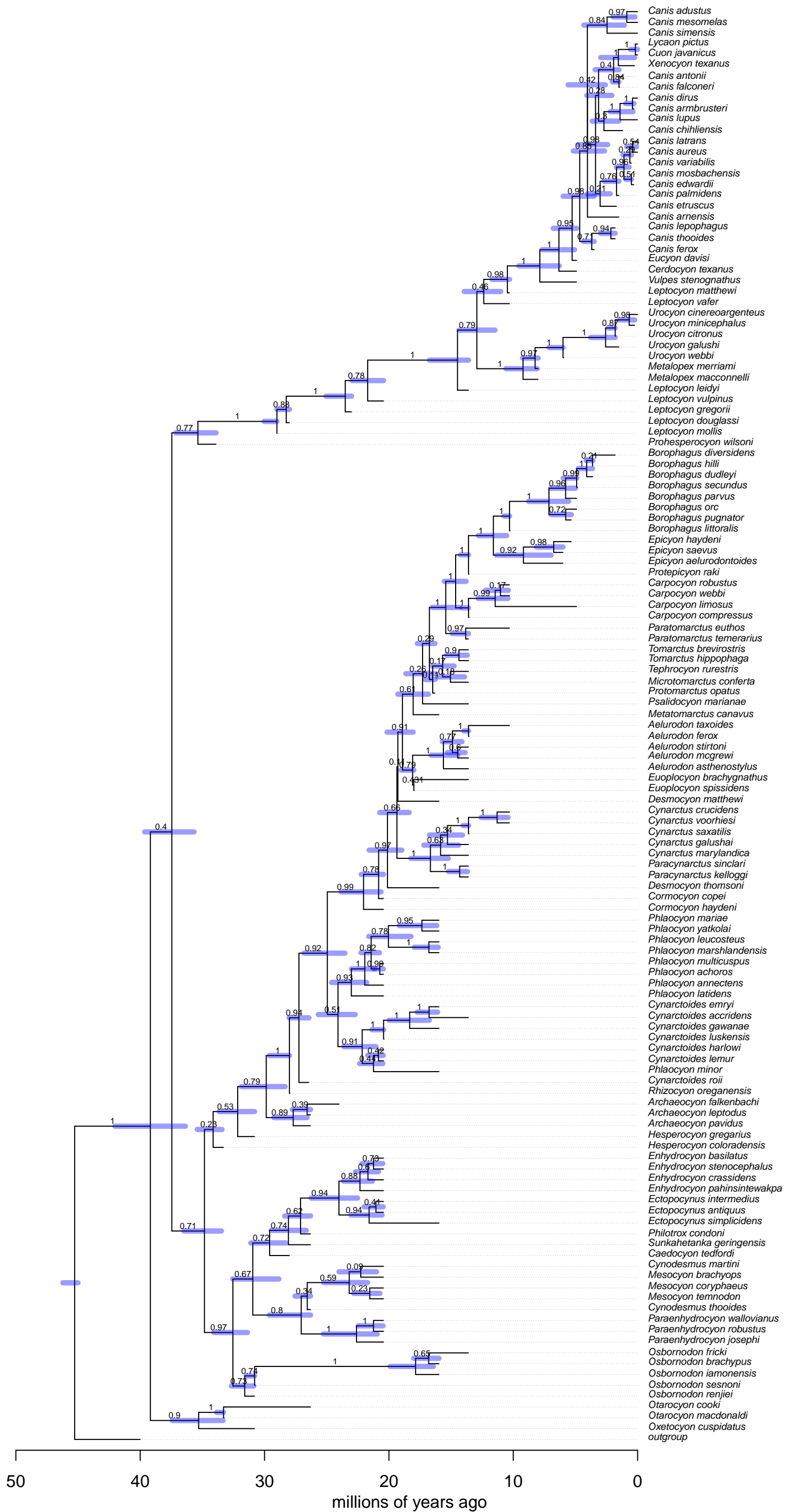
36: mb3.2.5_mb9



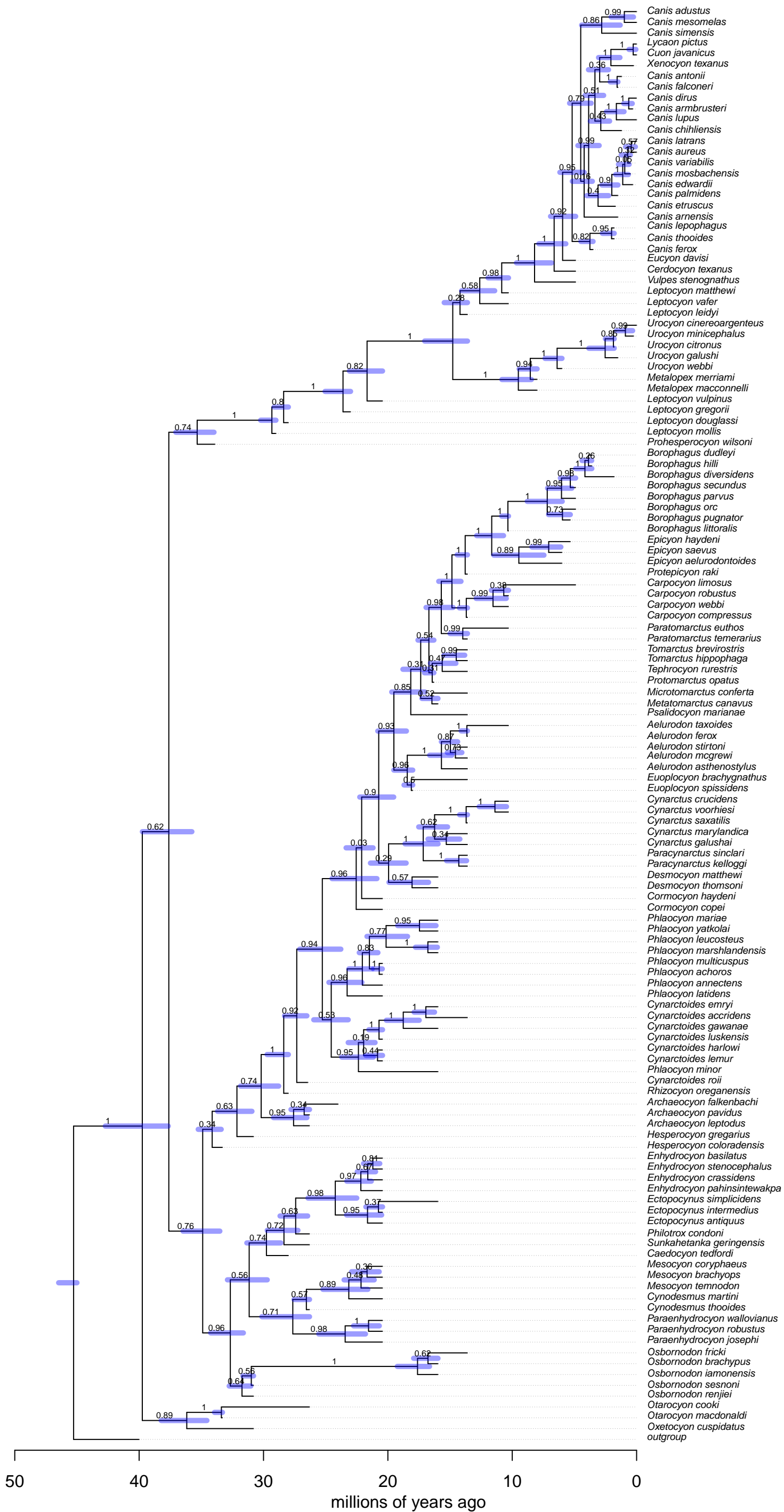
37: mb3.2.5_mb10



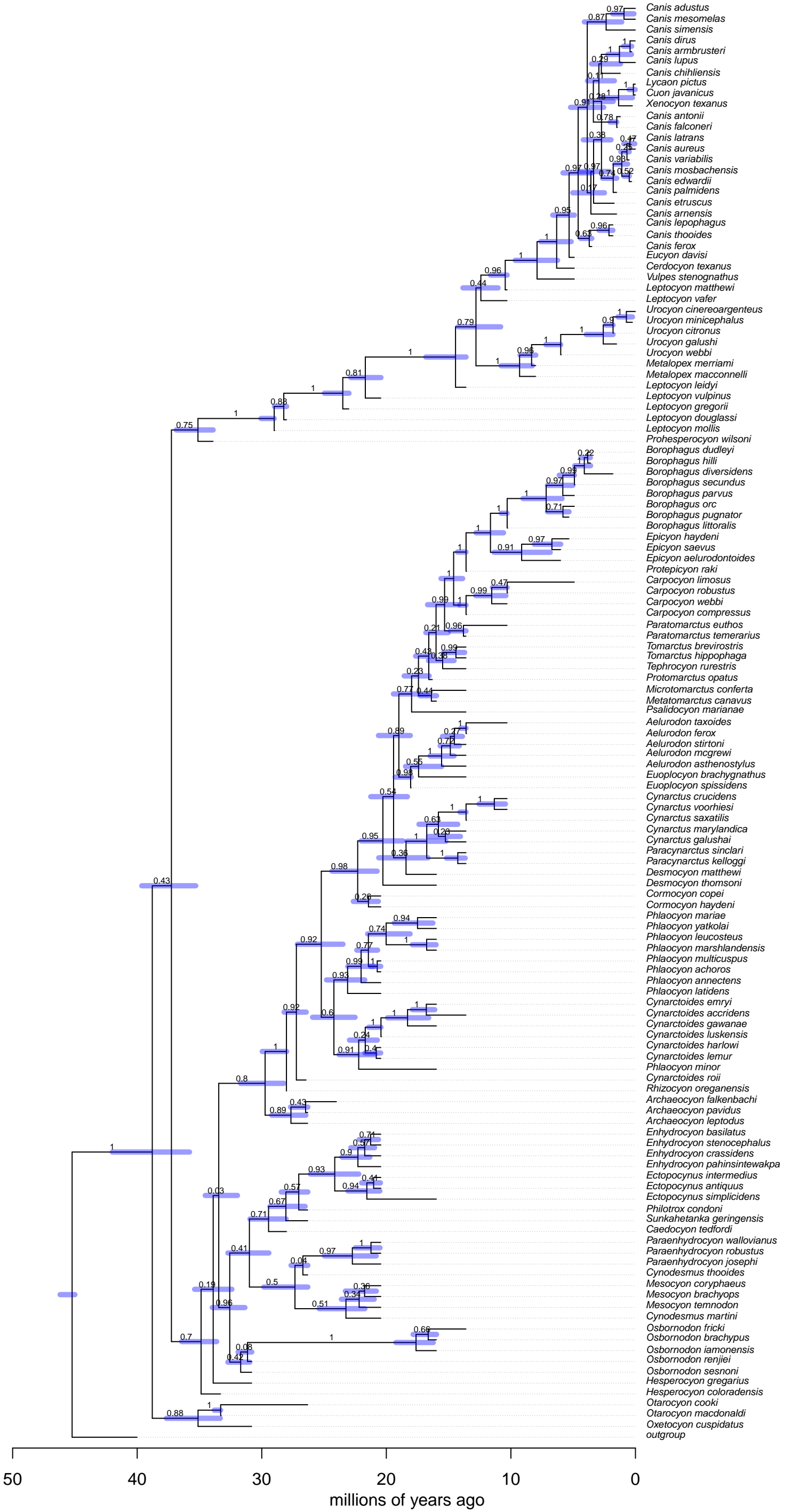
36a: mb3.2.5_mb9a



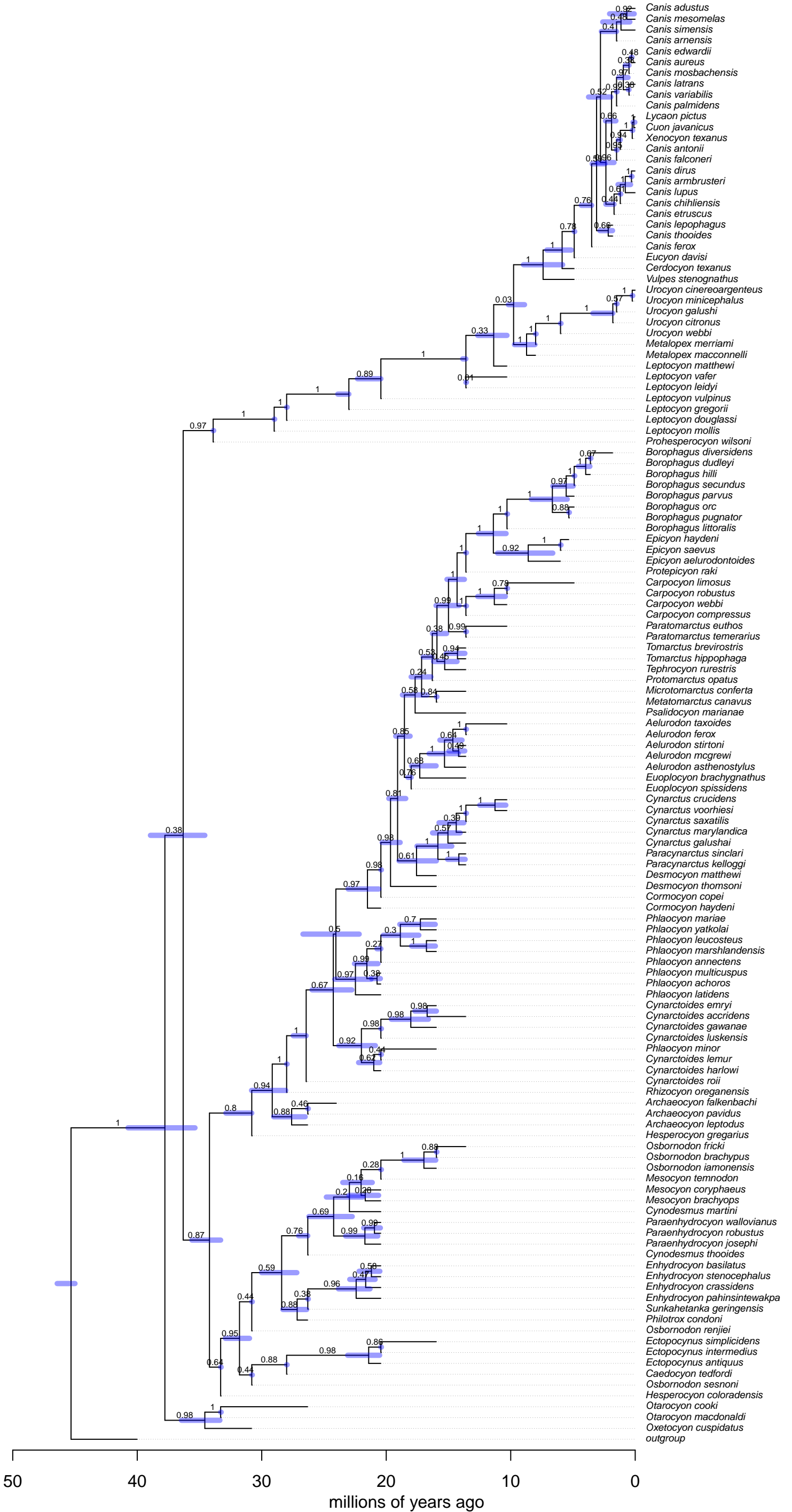
36b: mb3.2.5_mb9b



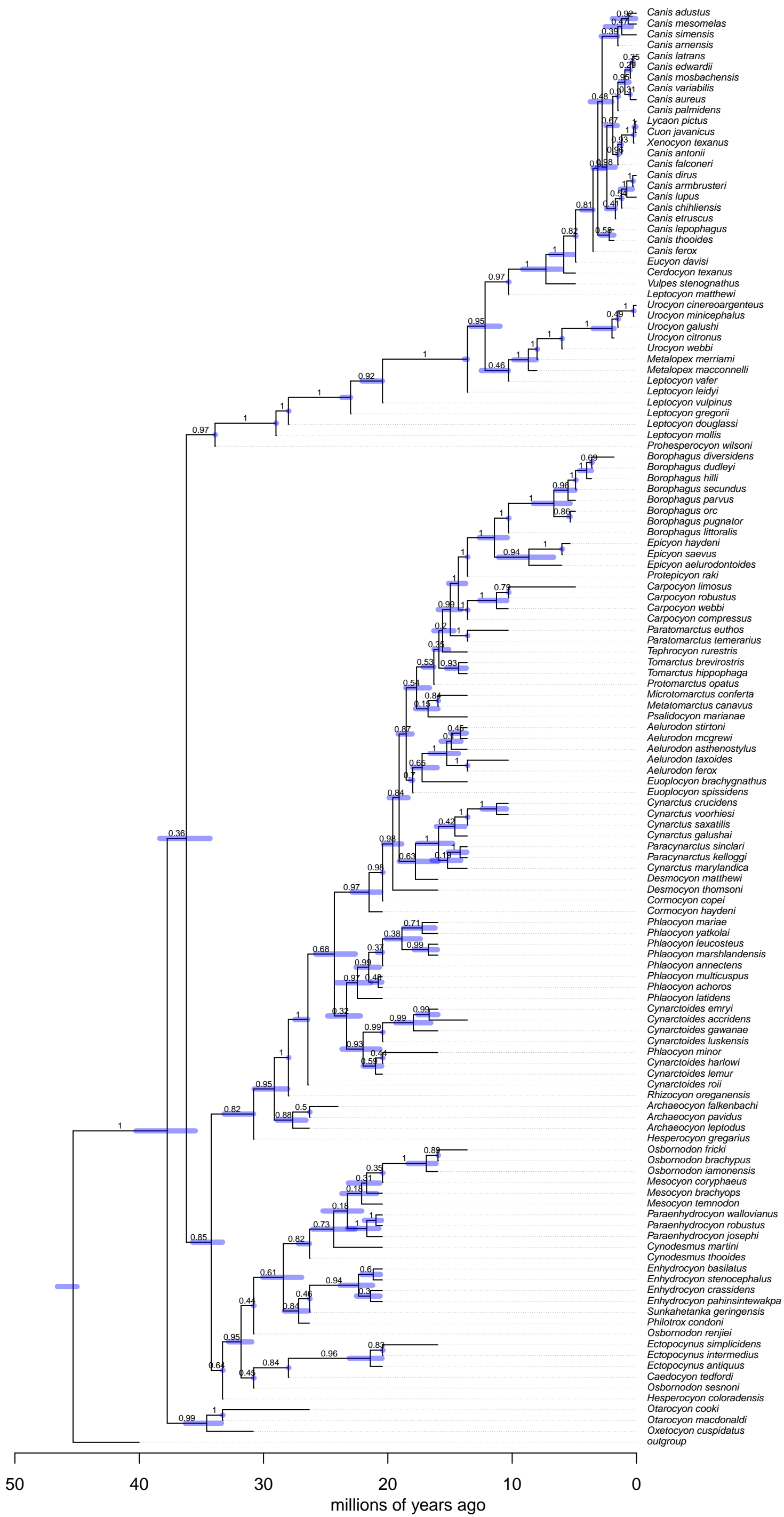
36c: mb3.2.5_mb9c



36x2: mb3.2.5_run1_v2



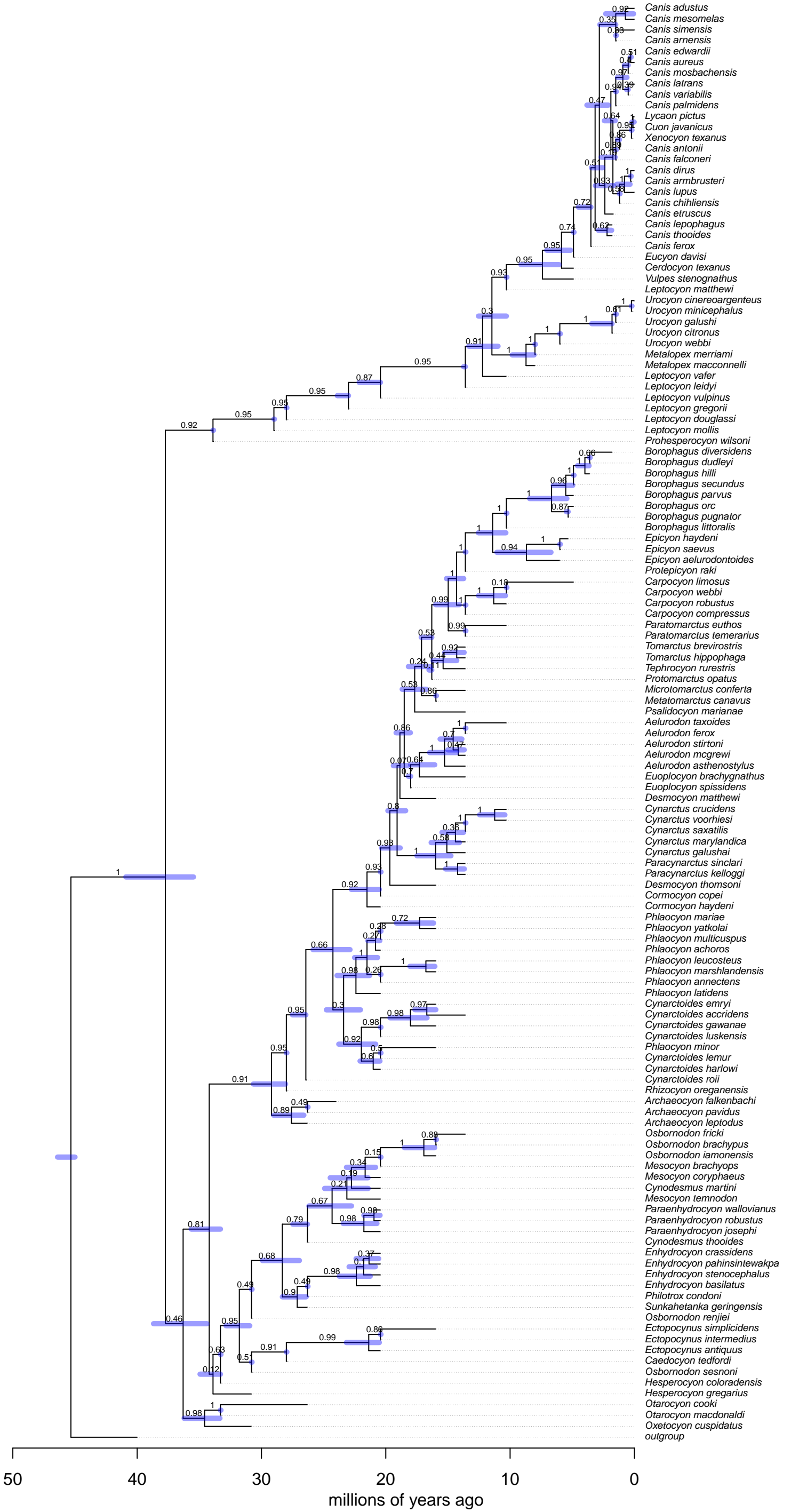
36x3: mb3.2.5_run1_v3



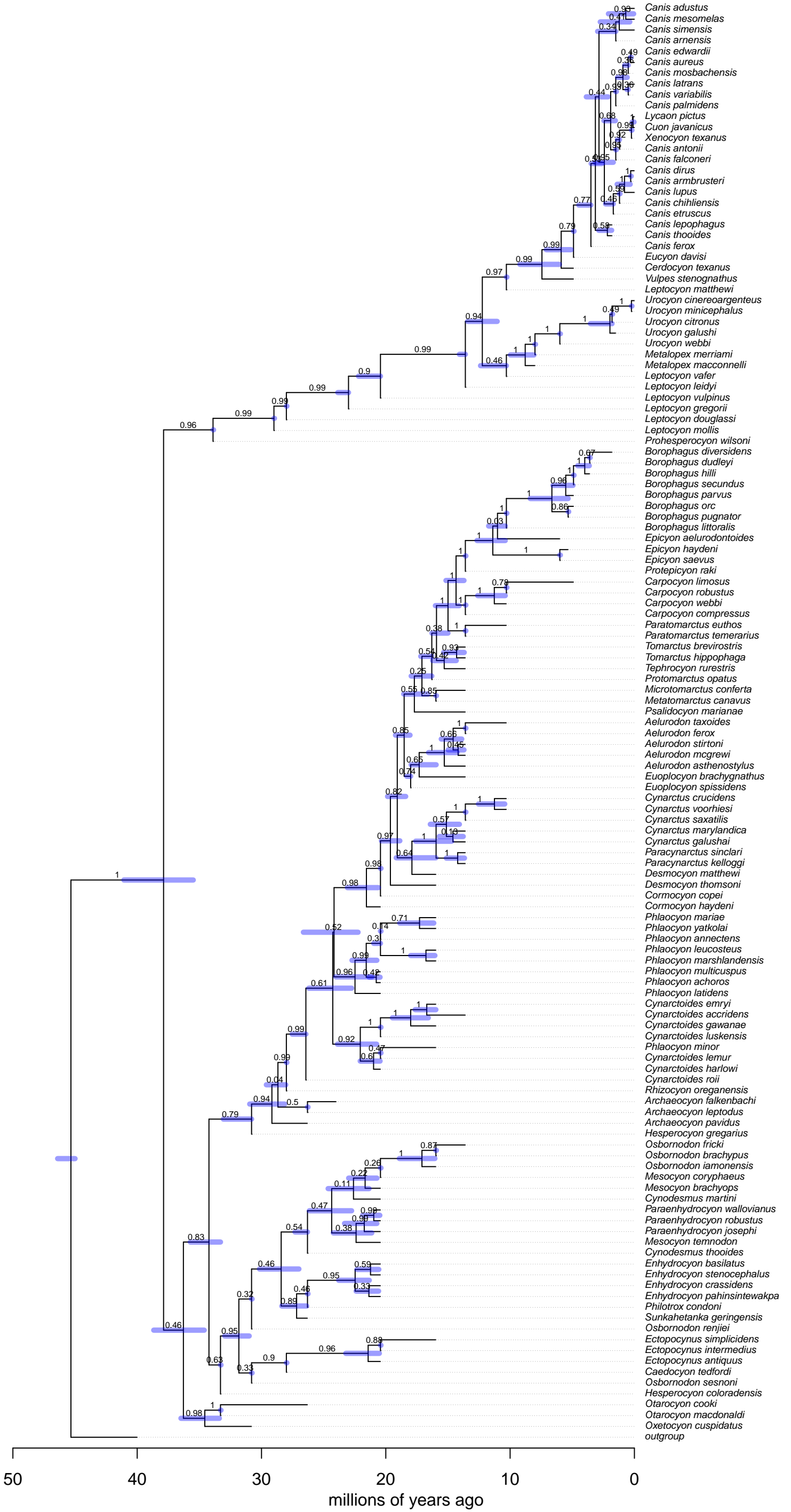
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- Canis mesomelas*
- Canis simensis*
- Canis arnensis*
- Canis latrans*
- Canis edwardii*
- Canis mosbachensis*
- Canis variabilis*
- Canis aureus*
- Canis palmidens*
- Lycaon pictus*
- Cuon javanicus*
- Xenocyon texanus*
- Canis antonii*
- Canis falconeri*
- Canis dirus*
- Canis armbrusteri*
- Canis lupus*
- Canis chihliensis*
- Canis etruscus*
- Canis lepophagus*
- Canis thoooides*
- Canis ferox*
- Eucyon davisi*
- Cerdocyon texanus*
- Vulpes stenognathus*
- Leptocyon matthewi*
- Urocyon cinereoargenteus*
- Urocyon minicephalus*
- Urocyon galushi*
- Urocyon citrons*
- Urocyon webbi*
- Metalopex merriami*
- Metalopex macconnelli*
- Leptocyon vafer*
- Leptocyon leidy*
- Leptocyon vulpinus*
- Leptocyon gregorii*
- Leptocyon douglassi*
- Leptocyon mollis*
- Prohesperocyon wilsoni*
- Borophagus diversidens*
- Borophagus dudleyi*
- Borophagus hilli*
- Borophagus secundus*
- Borophagus parvus*
- Borophagus orc*
- Borophagus pugnator*
- Borophagus littoralis*
- Epicyon haydeni*
- Epicyon saevus*
- Epicyon aelurodontoides*
- Protepicyon raki*
- Carpocyon limosus*
- Carpocyon robustus*
- Carpocyon webbi*
- Carpocyon compressus*
- Paratomarctus euthos*
- Paratomarctus temerarius*
- Tephrocyon rurestris*
- Tomarctus brevirostris*
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- Microtomarctus conferta*
- Metatomarctus canavus*
- Psalidocyon marianae*
- Aelurodon stirtoni*
- Aelurodon mcgrewi*
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- Aelurodon taxoides*
- Aelurodon ferax*
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- Euoplocyon spissidens*
- Cynarctus crucidens*
- Cynarctus voohiesi*
- Cynarctus saxatilis*
- Cynarctus galushai*
- Paracynarctus sinclari*
- Paracynarctus kelloggi*
- Cynarctus marylandica*
- Desmocyon matthewi*
- Desmocyon thomsoni*
- Cormocyon copei*
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- Phlaocyon mariae*
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- Cynarctoides gawanae*
- Cynarctoides luskensis*
- Phlaocyon minor*
- Cynarctoides harlowi*
- Cynarctoides lemur*
- Cynarctoides roii*
- Rhizocyon oregonensis*
- Archaeocyon falckenbachi*
- Archaeocyon pavidus*
- Archaeocyon leptodus*
- Hesperocyon gregarius*
- Osbornodon fricki*
- Osbornodon brachypus*
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- Mesocyon temnodon*
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- Paraenhydrocyon josephi*
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- Ectopocynus simplicidens*
- Ectopocynus intermedius*
- Ectopocynus antiquus*
- Caedocyon tedfordi*
- Osbornodon sesnoni*
- Hesperocyon coloradensis*
- Otarocyon cooki*
- Otarocyon macdonaldi*
- Oxetocyon cuspidatus*
- outgroup

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millions of years ago

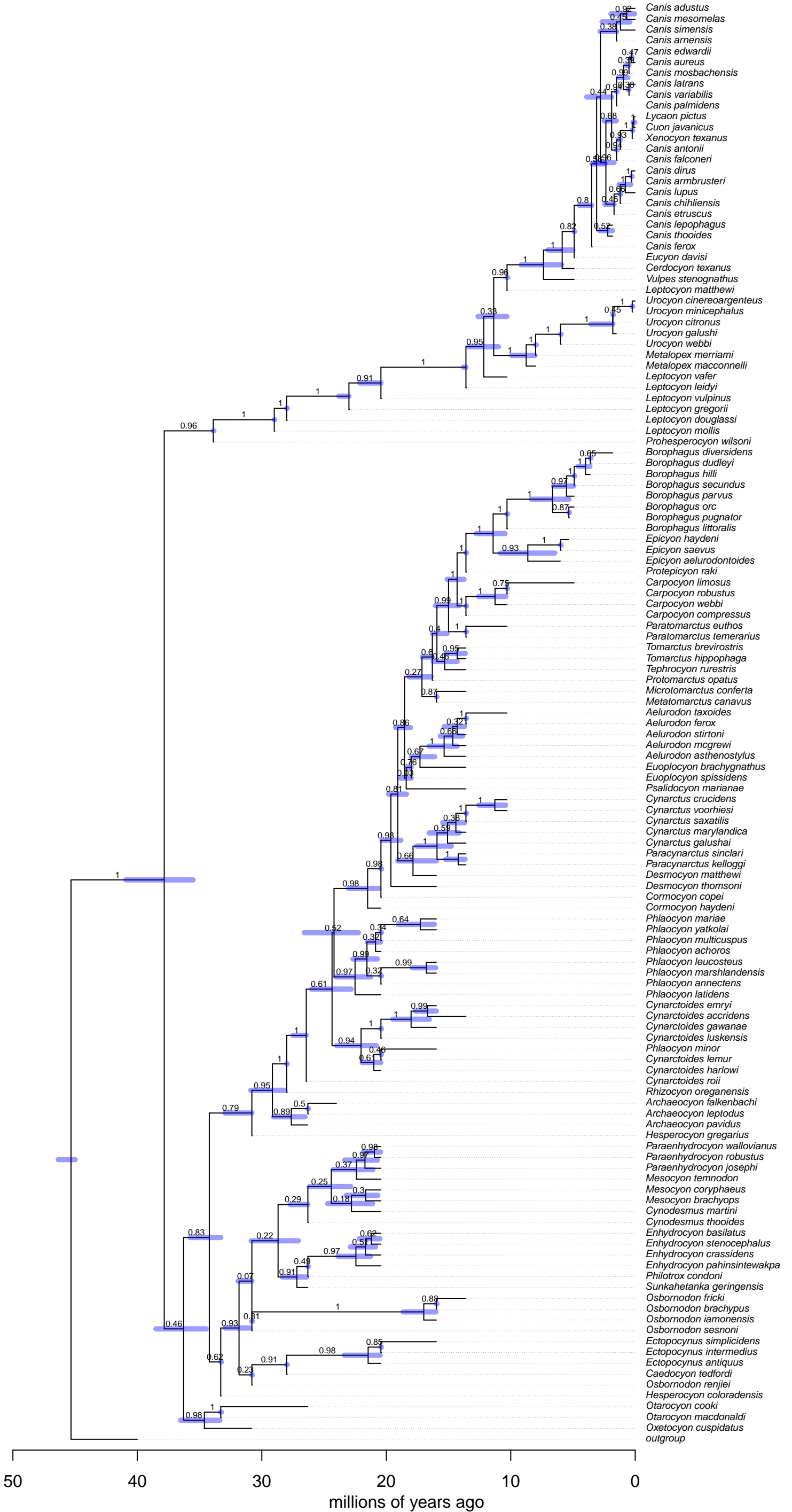
36x4: mb3.2.5_run1_v4



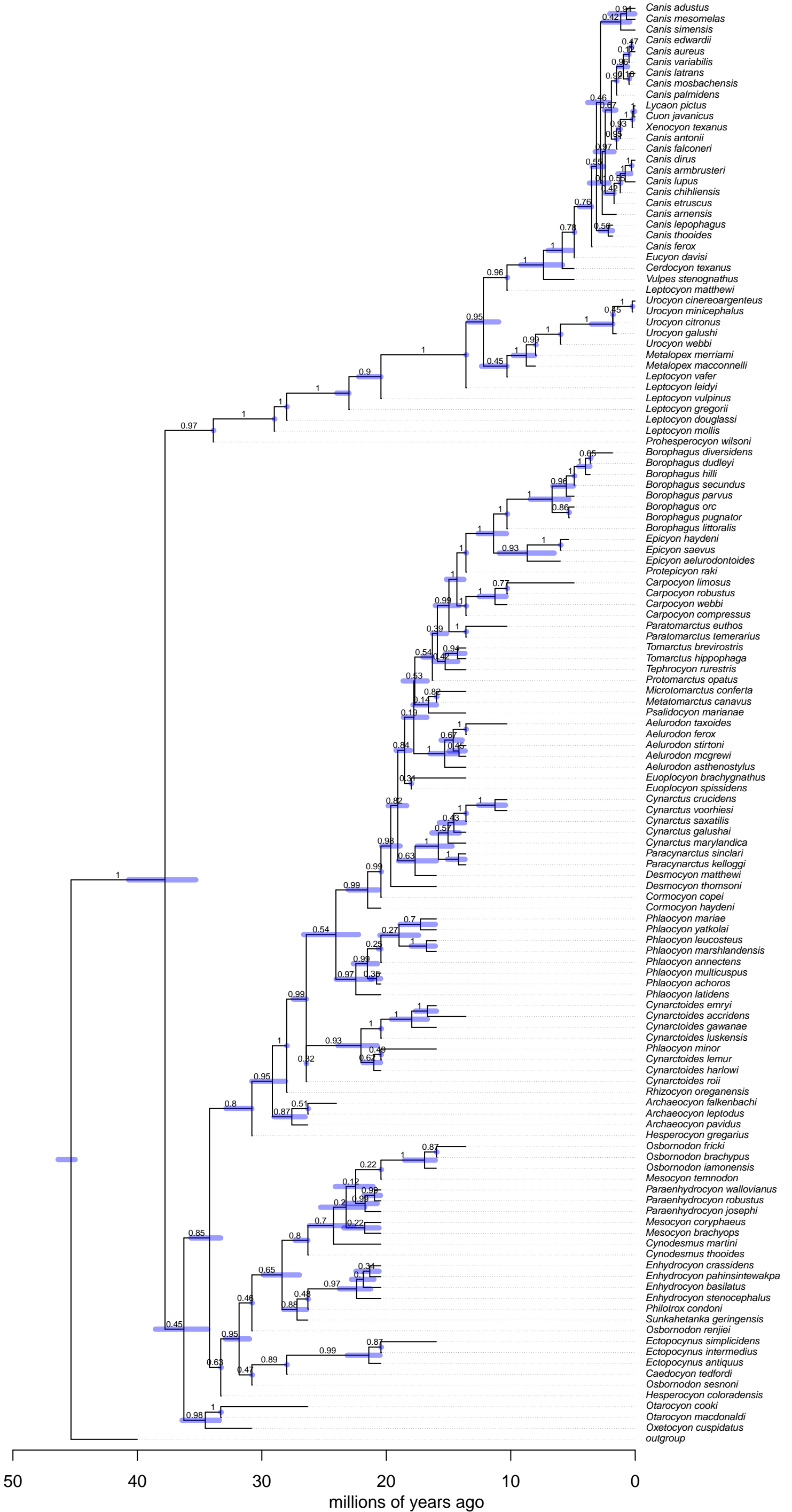
36x5: mb3.2.5_defaults_v1



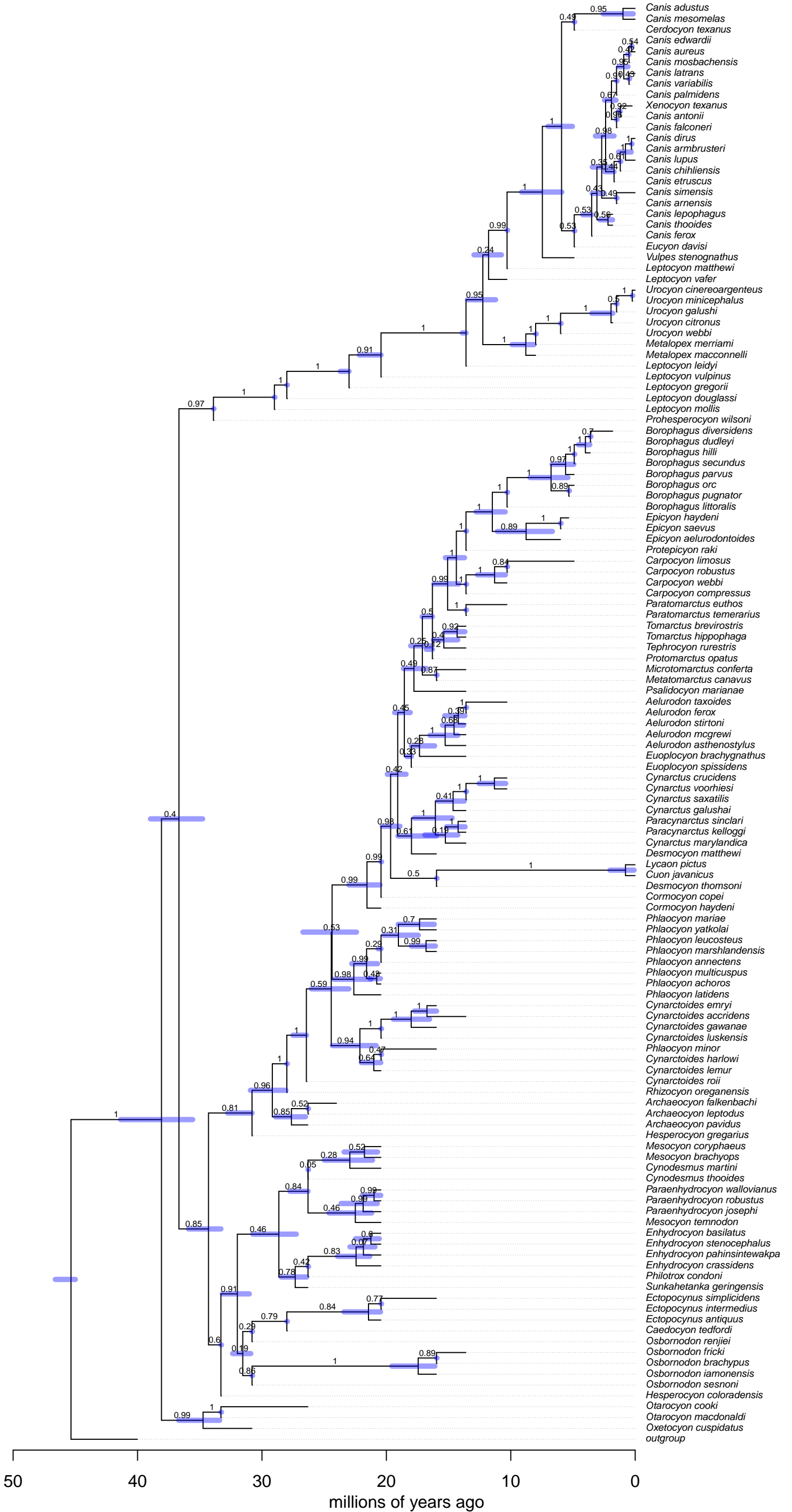
36x6: mb3.2.5_defaults_v2



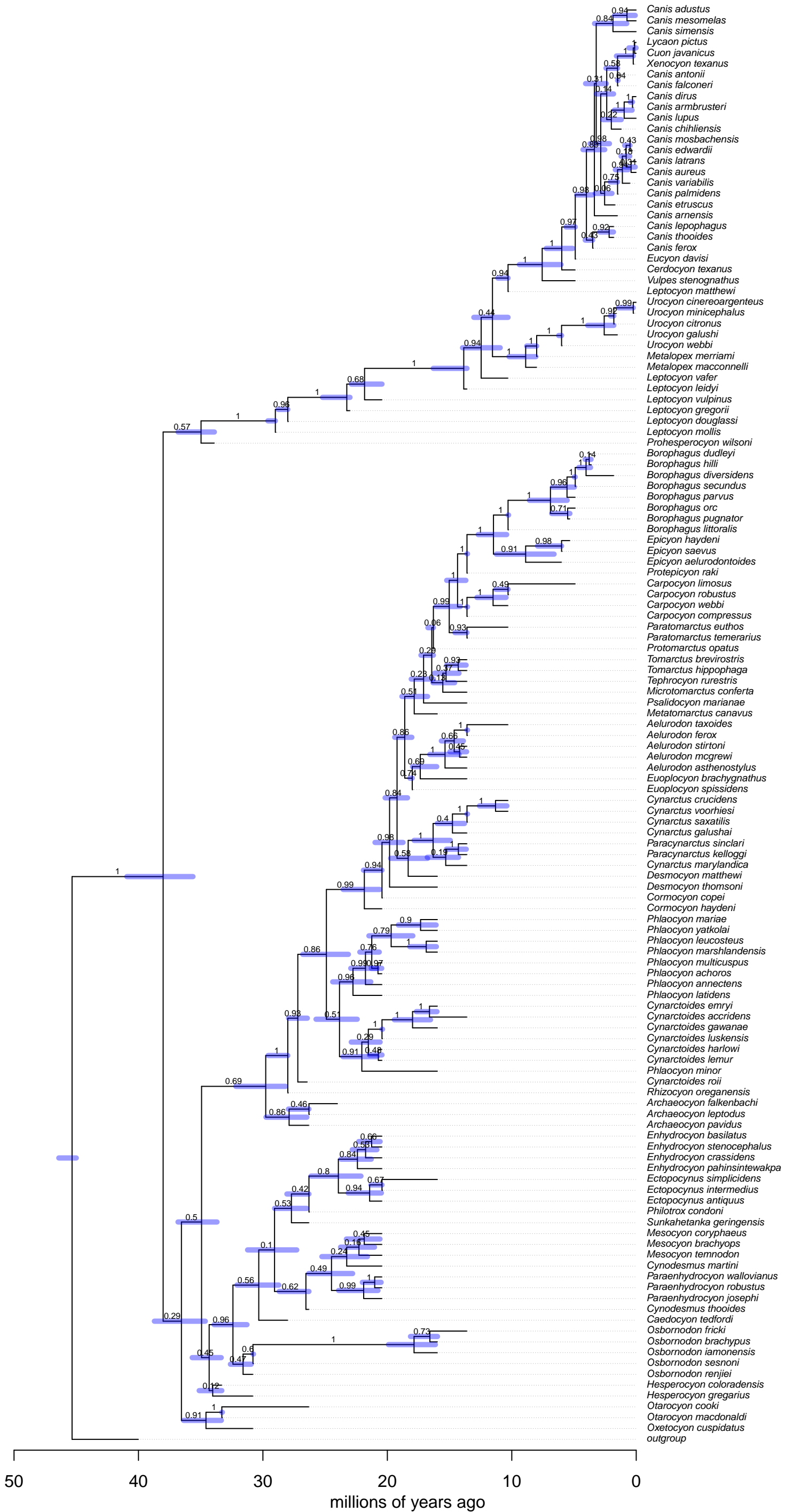
36x8: mb3.2.5_defaults_v4



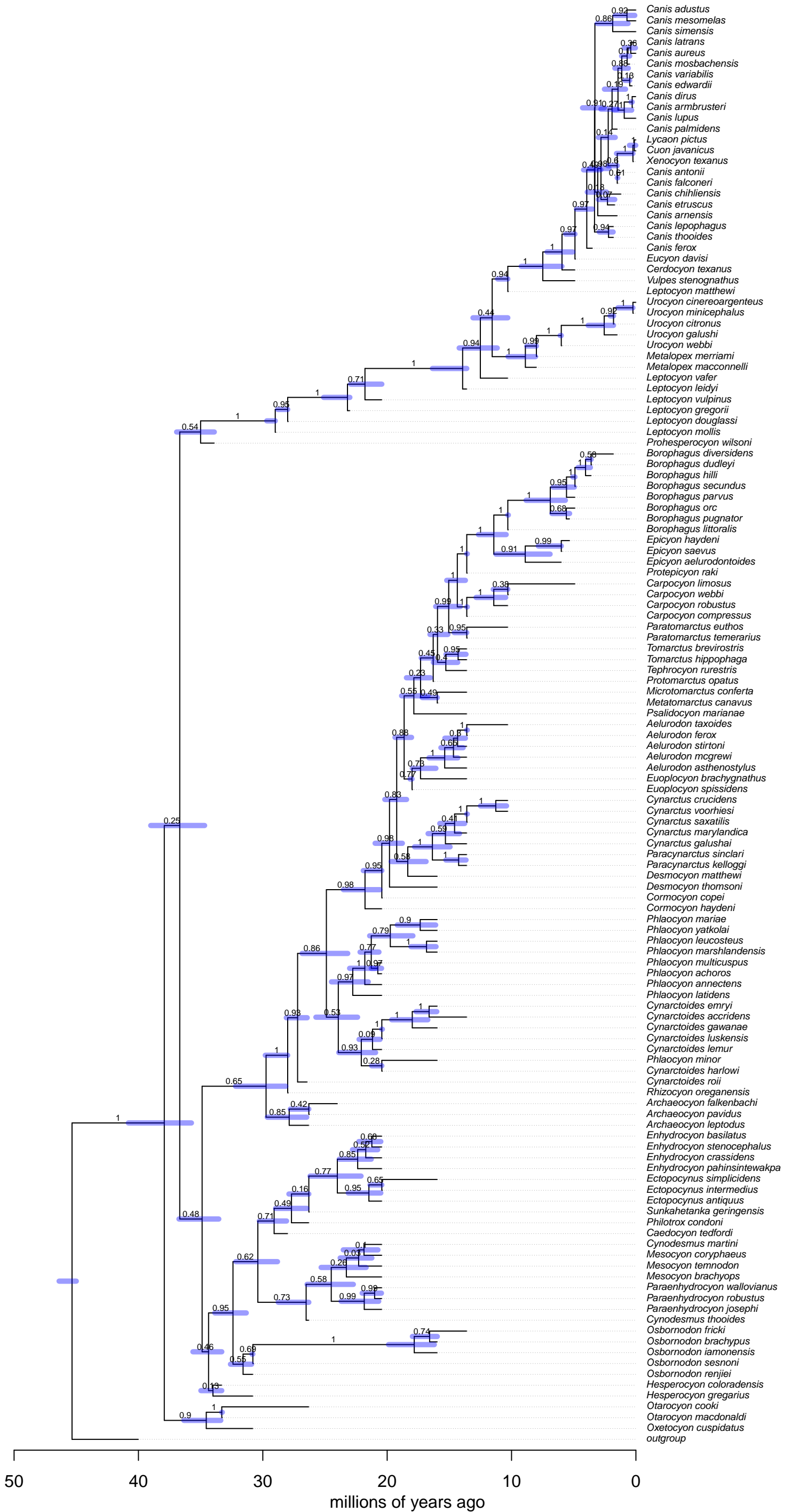
36x9: mb3.2.5_nruns1_v1_temp0.5



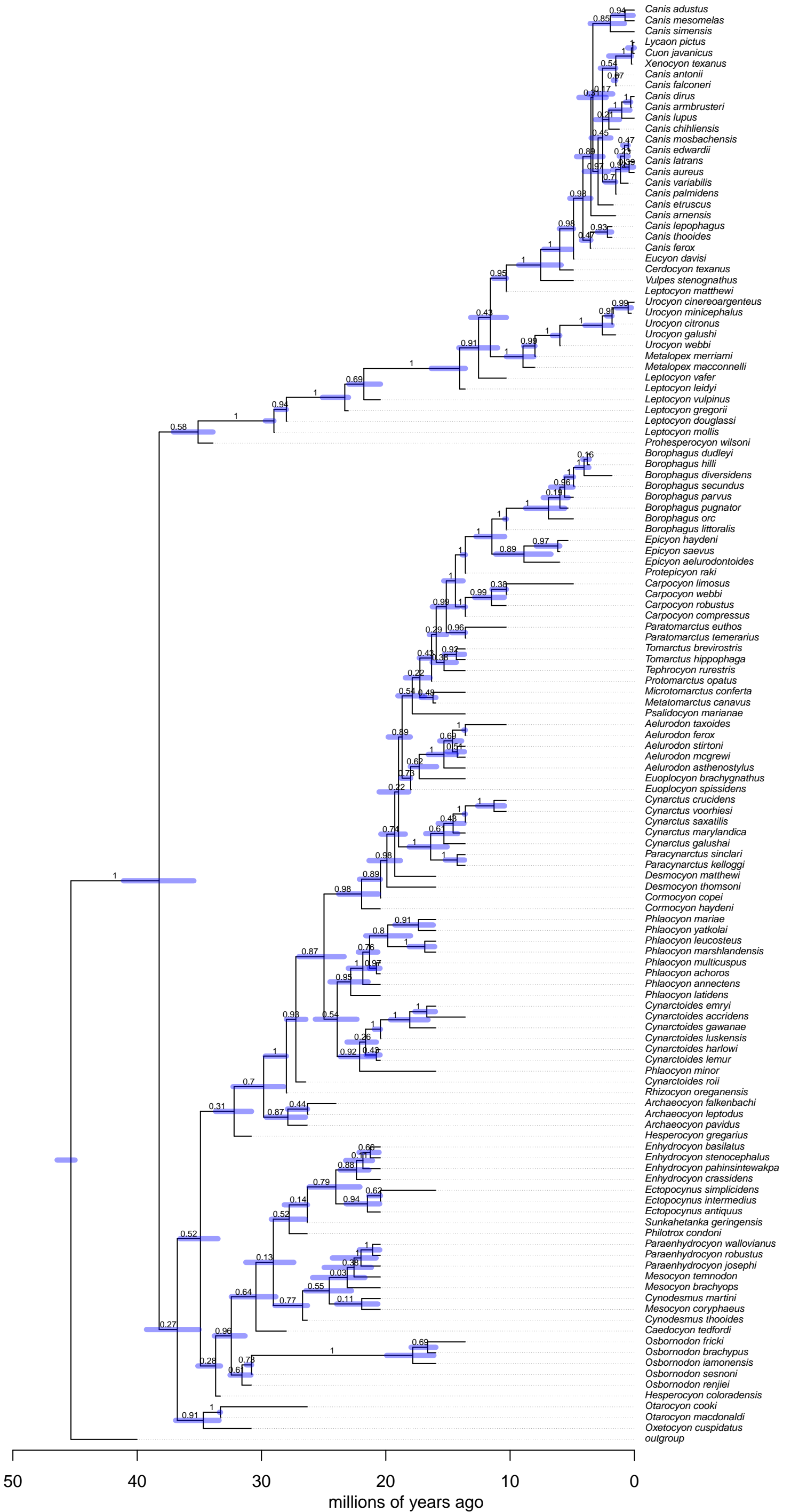
mb37x5: mb3.2.6_defaults1_v1



mb37x6: mb3.2.6_defaults1_v2



mb37x7: mb3.2.6_defaults1_v3



mb37x8: mb3.2.6_defaults1_v4

