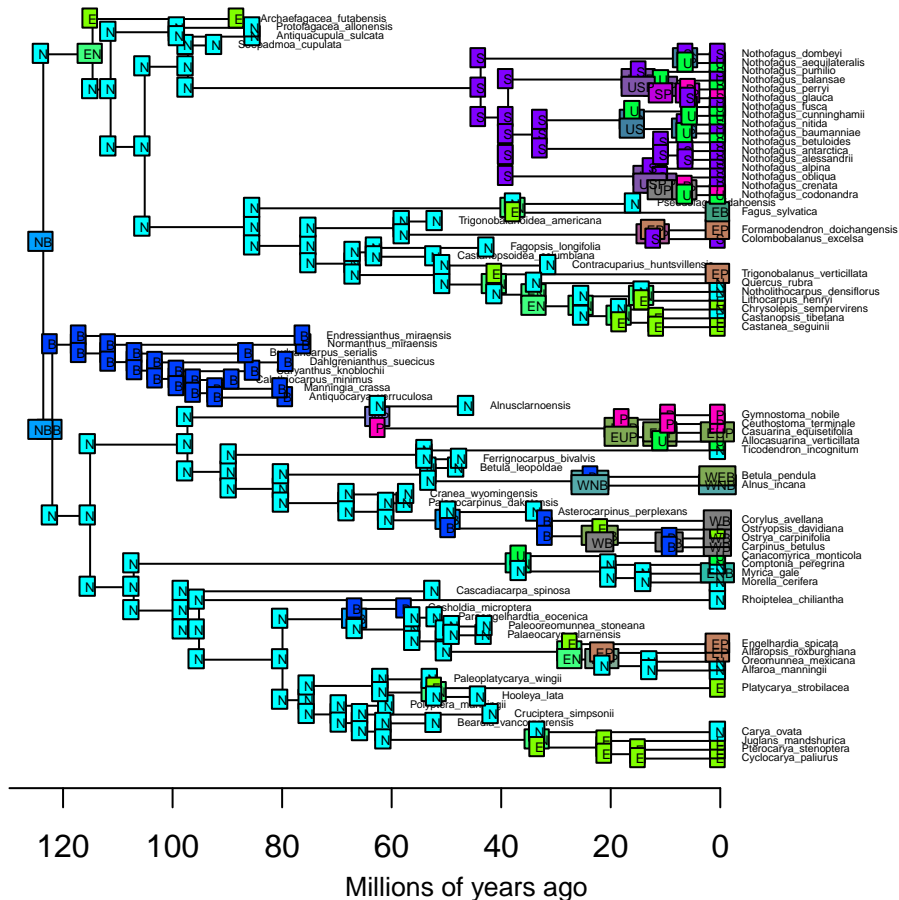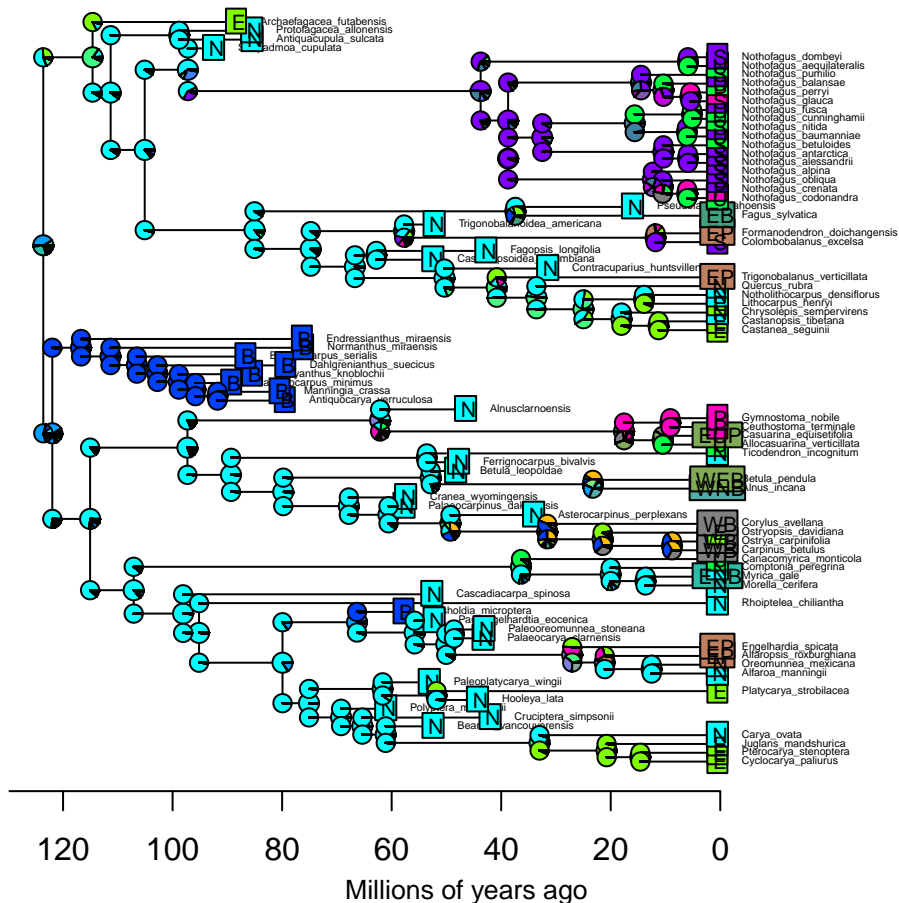**BioGeoBEARS DEC**
ancstates: global optim, 5 areas max. d=0.0019; e=0.0015; j=0; LnL=−197.12
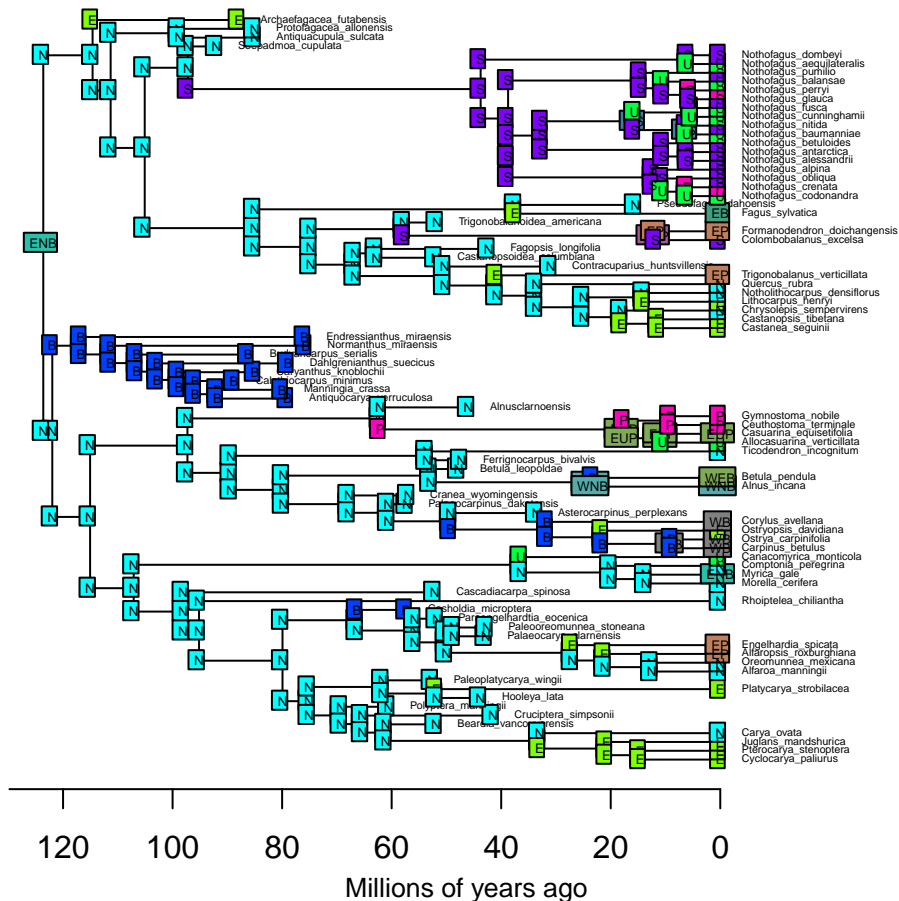
BioGeoBEARS DEC
ancstates: global optim, 5 areas max. d=0.0019; e=0.0015; j=0; LnL=−197.12

Archaefagacea_futabensis
Protofagacea_allonensis
Antiquacupula_sulcata
Castanopsoidea_cupulata
Nothofagus_dombeyi
Nothofagus_aequilateralis
Nothofagus_pumilio
Nothofagus_balansae
Nothofagus_perryi
Nothofagus_glauca
Nothofagus_fusca
Nothofagus_cunninghamii
Nothofagus_nitida
Nothofagus_baumanniae
Nothofagus_betuloides
Nothofagus_antarctica
Nothofagus_alessandrii
Nothofagus_alpina
Nothofagus_obliqua
Nothofagus_crenata
Nothofagus_codonandra
Pseudofagus_idahoensis
Fagus_sylvatica
Formanodendron_doichangensis
Colombobalanus_excelsa
Fagopsis_longifolia
Castanopsoidea_columbiana
Contracuparius_huntsvillensis
Trigonobalanus_verticillata
Quercus_rubra
Notholithocarpus_densiflorus
Lithocarpus_henryi
Chrysolepis_sempervirens
Castanopsis_tibetana
Castanea_seguinii
Endressianthus_miraensis
Normanthus_miraensis
Eurpus_serialis
Dahlgrenianthus_suecicus
Manninganthus_knoblochii
Protofagacarpus_minimus
Manningia_crassa
Antiquocarya_verruculosa
Alnusclarnoensis
Gymnostoma_nobile
Ceuthostoma_terminale
Casuarina_equisetifolia
Allocasuarina_verticillata
Ticodendron_incognitum
Ferrignocarpus_bivalvis
Betula_leopoldae
Betula_pendula
Alnus_incana
Cranea_wyomingensis
Paleocarpinus_dakotensis
Asterocarpinus_perplexans
Corylus_avellana
Ostryopsis_davidiana
Ostrya_carpinifolia
Carpinus_betulus
Canacomyrica_monticola
Comptonia_peregrina
Myrica_gale
Morella_cerifera
Rhoiptelea_chiliantha
Cascadiacarpa_spinosa
Paleoengelhardia_microptera
Palaeocarya_eocenica
Paleooreomunnea_stoneana
Palaeocarya_jarnensis
Engelhardia_spicata
Alfaropsis_roxburghiana
Oreomunnea_mexicana
Alfaroa_manningii
Paleoplatycarya_wingii
Platycarya_strobilacea
Hooleya_lata
Polyptera_manningii
Cruciptera_simpsonii
Beardia_vancouverensis
Carya_ovata
Juglans_mandshurica
Pterocarya_stenoptera
Cyclocarya_paliurus

120   100   80   60   40   20   0
Millions of years ago

BioGeoBEARS DEC+J
ancstates: global optim, 5 areas max. d=0.001; e=0; j=0.0268; LnL=−179.01

BioGeoBEARS DEC+J
ancstates: global optim, 5 areas max. d=0.001; e=0; j=0.0268; LnL=−179.01

Archaefagacea_futabensis
Protofagacea_allonensis
Antiquacupula_sulcata
Casfadmoa_cupulata
Nothofagus_dombeyi
Nothofagus_aequilateralis
Nothofagus_pumilio
Nothofagus_balansae
Nothofagus_perryi
Nothofagus_glauca
Nothofagus_fusca
Nothofagus_cunninghamii
Nothofagus_nitida
Nothofagus_baumanniae
Nothofagus_betuloides
Nothofagus_antarctica
Nothofagus_alessandrii
Nothofagus_alpina
Nothofagus_obliqua
Nothofagus_crenata
Nothofagus_codonandra
Pseudofagus_idahoensis
Fagus_sylvatica
Trigonobalanoidea_americana
Formanodendron_doichangensis
Colombobalanus_excelsa
Fagopsis_longifolia
Castanopsoidea_columbiana
Contracuparius_huntsvillensis
Trigonobalanus_verticillata
Quercus_rubra
Notholithocarpus_densiflorus
Lithocarpus_henryi
Chrysolepis_sempervirens
Castanopsis_tibetana
Castanea_seguinii
Endressianthus_miraensis
Normanthus_miraensis
Eotrigonobalanus_serialis
Dahlgrenianthus_suecicus
Berryanthus_knoblochii
Fagopsicarpus_minimus
Manningia_crassa
Antiquocarya_verruculosa
Alnusclarnoensis
Gymnostoma_nobile
Ceuthostoma_terminale
Casuarina_equisetifolia
Allocasuarina_verticillata
Ticodendron_incognitum
Ferrignocarpus_bivalvis
Betula_leopoldae
Betula_pendula
Alnus_incana
Cranea_wyomingensis
Palaeocarpinus_dakotensis
Asterocarpinus_perplexans
Corylus_avellana
Ostryopsis_davidiana
Ostrya_carpinifolia
Carpinus_betulus
Canacomyrica_monticola
Comptonia_peregrina
Myrica_gale
Morella_cerifera
Rhoiptelea_chiliantha
Cascadiacarpa_spinosa
Paleooreomunnea_stoneana
Engelhardia_microptera
Paleoplatycarya_wingii
Hooleya_lata
Cruciptera_simpsonii
Polyptera_manningii
Beardia_vancouverensis
Engelhardia_spicata
Alfaropsis_roxburghiana
Oreomunnea_mexicana
Alfaroa_manningii
Platycarya_strobilacea
Carya_ovata
Juglans_mandshurica
Pterocarya_stenoptera
Cyclocarya_paliurus

Millions of years ago