#NEXUS

[written Sat Oct 31 16:10:40 CET 2020 by Mesquite version 3.51 (build 898) at GEOSPC117/134.21.151.15]

BEGIN TAXA;

TITLE Taxa;

DIMENSIONS NTAX=62;

TAXLABELS

Dromaeosauridae Archaeopteryx Jeholornis Sapeornis Confuciusornis\_sanctus Confuciusornis\_dui Changchengornis Eoconfuciusornis Chaoyangia Xinghaiornis Eogranivora Parahongshan Zhongjianornis Boluochia Shenqiornis Cathyaornis Concornis Elsornis Eoalulavis Eocathayornis Eoenantiornis Gobipteryx Iberomesornis Longipteryx Longirostravis Neuquenornis Otogornis Eopengornis Pengornis Protopteryx Rapaxavis Shanweiniao Vescornis Vorona Schizooura Archaeornithura Jianchangornis Dingavis Liaoningornis Songlingornis Ambiortus Longicrusavis Apsaravis Hongshanornis Yanornis Iteravis Patagopteryx Hollanda Yixianornis Gansus Ichthyornis Hesperornis Parahesperornis Enaliornis Baptornis\_advenus Baptornis\_varneri Limenavis Vegavis Anas Gallus Archaeorhynchus LNTU\_WLMP\_18

;

END;

BEGIN CHARACTERS;

TITLE Character\_Matrix;

DIMENSIONS NCHAR=245;

FORMAT DATATYPE = STANDARD GAP = - MISSING = ? SYMBOLS = " 0 1 2 3 4 5 6";

MATRIX

Dromaeosauridae 0000000000000000000000000000000000000??00000000000000000000000000000000001????1?0000000000000?000000000000020?{0 1}??00000000000000100000000000000100000000??000?000000000000000{0 1}0000000{0 1}00000000000010000{0 1}00?000000000100000000000000000000{0 1}000000000000

Archaeopteryx 00000000000000?0010010?00?000??0?000???0000000?1000?100000??00000?00020001????0?0000000000000?0000?0?0000000????????????000?0001100000000000???00000000??001000001000000000000002000000001?0001?010000??0?00000?0001?0??0??00000000000000?0?00?000100

Jeholornis {0 1}?23111????????????0?????????????00?????000?00?1??0????00??10000????010000??????01101?000001??110?????1??00{1 2}?????????????0000000000?0{0 1}00??01011110?0000012110010000100000000100130000000011?101?010010????0???0?0??0{0 1}0?10??1100000000??00?0200?0010?0

Sapeornis 1010010{0 1}?0??????0010?1?0?????????1?0????00??0??1????100{0 1}01??10010?0024000000?00?000011000000??000000??10002??????????????00?00001100000???0100111????00??21100001000?0000010101030000??0?110101111?010010??0100?1000?0?111?11000000000000?0000?0011??

Confuciusornis\_sanctus 10231111?0?????00010110000120???11?1121010?1100?101?101{0 1}01112001000024000{1 2}00001?0100?0?0000???00000000000002{1 2}111?0112100000010002102000001010000100210001210?0001100?00000002100200000000?101011110010101120101?1?0010000?111000010001021002000001100

Confuciusornis\_dui ??23111????????????????0?????????1???????0??1??????????????????{0 1 2}????14?10?0??0??0??????????????????????????2{1 2}?0??0???10?0?0??00021?????????????01?????0???1??0{0 1}00?00?00{0 1}??0021002?????????????????????????{0 2}?????????1???????10????0?00????0{1 2}00?0010?0

Changchengornis 1?231111?0????????1??????0???????1?11??0?0??100???{1 2}?????????2??1???024??0?0000??0100?0?000????000000?0?000021?1??01??10?0?0????02??????????????01?????0????0?0000?0??000000021002???0???????????{1 2}???1????????????0?????????110000?0?0??2??0100?0011?0

Eoconfuciusornis {1 2}?231?1{0 1}?0??????0????????????????1?01??000??100????0?0?00???0??1???0241???0??0??0000???000000?0000?0?0000?02{1 2}???????????0?00000?100?0???000????01?????0??01??00001?0?0000000210020??0??0?????????10010??????????0??????10????0?000000002?00200?001000

Chaoyangia ????????????????????????????????????????????????????????0???{1 2}??{2 3 4}??????????????{1 2}1??????????????????????????????????????????????????????????????????????????????????????????????????0?0??0???01010{1 2}1?001?0?0???0?????{1 2}???????1?????????????????????????

Xinghaiornis {0 1}123011{0 1}?1????????1??????????????1??????10??0??????????????????{2 3 4}????{1 2}4??0?1000???1111100100???2100????111?{2 3}2{2 3}?{1 2}21111????010??00020?3?{0 1}?????????11??2?10?????????1?{0 1}0??0?1010?01131000??0??1?101?21????????2??0??1?1?1????0?11{1 2}01???001?0??01?0??010??

Eogranivora ?023??1??????????????????????????1?10???????????????????????????????24?{1 2}1110?0???1111?0?10????{0 1}1??????121??23022111???0???0????010????????01???1??????01??1??01?00000?02101010113?000????11??????1??11??????????1?0???????211{0 1}010?0???????0000?00???1

Parahongshan ?????????????????????????????????????????????????????????????????????????????????1111?0?10????010?00?0?21?123?220?????0???0????0100?0?????01???10????1????1??0???1?00?01100010101??????????0100?1???10????????????0{1 2}?{0 1}?{1 2}???1??????0????0??0000?0011??

Zhongjianornis 01?3??1??????????????????????0?0?1?10??0????????????????011?1????????{3 4}??01????11?????1?????????10?0??01110??????????????0?0??00020?????0000????11?????0??2???001100010?1000000113?0101?0?01?101?{1 2}??0???0?{1 2}2??0????0?{0 1}????????{1 2}?1??0{0 1}00??????0??0?11??

Boluochia ?1{1 2}{0 2}????????????????????????????????????????????????????????????????2????????1?????????????????????????????{1 2}{1 2}?{1 2}??????20????????????????????????????????????????????????????????????????????110101???10??????????0???????????0{0 1}?100100002??3200?0011??

Shenqiornis {0 1}0101102????????0??????0?1???????000???000???1?1???11?0?01??11??????????0???????01111?0?01?{1 2}??000?0???011?{2 3}2{1 2 3}?{1 2}{1 2}1?1??20??01101?000?????????1???11????????01??001010010110010101130000??????01?111???10??????????0???????????00??0010???2???{0 1}?0?0?1???

Cathyaornis {1 2}0{1 2}0??0{0 1 2}?????????????????????????000????00?????1??1??1??0???11?2????240?0?0111???1111?0???0???000100?0111?322122111??20?0011?11010211{0 1}01011111011????110?31100010?{0 1}00012001010122000000??11??????100????12????1????{0 1}?????1?1?????????????????????????

Concornis ????????????????????????????????????????????????????????01??11????????0?01???????111110?01?11?00?1?????1112221221110?20?00111??0{0 1}0211??????1????1112????????????0??0???20010{0 1}0122??????????11?1?{1 2}??01?0?????????1111???????1110?0010??0{0 1}??0000?001???

Elsornis ??????????????????????????????????????????????????{0 1}??10?0?1?10???????????????????111110001121?000100010111{2 3}22010?11??{1 2}0?00110000000{1 2}010000111??0100{1 2}1?1??31?????0?{0 1}?01???????????????????????????????????????????????????????????????????????????????

Eoalulavis ??????????????????????????????????????????????????00111200??2?0???????????????0??11111010111100000000?111?312?0??010?30?00111100102110010011111111?21?1?????????0??1?011001????2???0?????1??????????????1?1????????????????????????????????????????1?

Eocathayornis ???0???????????????????0???0?????000????00?????1????????00???????????????????????11?????01????000000??0????2212{1 2}111??20??01??1?000???{0 1}????11???10??????0?31??0010??0001200100011?????????????????????????????????????????????????????????????????????

Eoenantiornis {0 1}010??0????????????????0?????????00????????????1???????????????{0 1 2}????24020?????1?0111110101?11000??00???11122{1 2 3}?1??110?2000?1??1?000?????????????11?????10?31??0000?000011001010122???0???????????{1 2}??0{1 2}0????1?????????????????11??0?10??????0??1?0?1110

Gobipteryx 10{1 2}3101300021?10????????0???0?1??1?{0 1}0???10???10??????1?????????{0 1 2}10??{1 2}401?????????1111?010?1???0??0000??111{2 3}?????????????0??????0??????0????????11???111?????????0??0?01?00??????20???????????????10?11???????????10{0 1}10?011?110010?100??11?0??1?1?????

Iberomesornis ??????????????????????????????????????????????????0??1110??1000001?0{1 2}401010???0??11???0?00?2??0????????11?{2 3}{1 2}{1 2 3}???????????????0???????1?0???111??11???????????????????????????????????????????????1??0???????0????01?0????????00?100000001??000??0011??

Longipteryx ?122111??????????????????????????000????00??01?1??1011?????????2????24??0?01?11?0111110100????000?000?111132{2 3}?21101??20??0110??0002??{0 1}?0?011?1?11?????00?01100000100?0110010001130000????1111011{1 2}11010?0?{1 2}1?10????0????0?1?1?0?1000000001?{1 3}2000001{0 1}??

Longirostravis {0 1}022??1??????????????????????????00?????00??01?1??1?????0?????01????24??0?01?10?0111????00?2??000?00??0111{1 2 3}2{1 2 3}?221110?20??01??1??00???{0 1}?????????10??????0?31??10?0?{0 1}0101?0011?0122??0?????1??10?1?11????0?1??????1?00?????1?11{0 1}?10000??0???0100?00????

Neuquenornis ????????????????????????????????????????????????????????0???11???????????????????111????011111000????1?1111230{1 2}?1?1?????0????11?????1?01?01????11?1??11??31??10?0?{0 1}0001?????????????????????????????????1110???????1????????10??0?1??1?2?00?011001{1 2}??

Otogornis ?????????????????????????????????????????????????????????????????????????????????11111?????????0??00????????????????????0?1??10010???{0 1}?0001111?11????????????????????????????????????????????????????????????????????????????????????????????????????

Eopengornis 0000110{0 1 2}?0?????????????0?????????00000?000?????1??10?0??00??????????24??0?1?????01111101010???000?01?00111321?110?1??10?0?10010000??10?0001????10??????0??1{0 1}?00?0?001011001010103??????????????????010???????0????100??????0???0001????1??0101?0012?0

Pengornis 00{0 1}01101?0??????0??????0?1???????000???0?0?????1102??1??0?1?10?1????240?0{1 2}??00??01111???01?????0?001???11?2?????????????0?0?0100101??{0 1}?100?1???11??????1{0 2}{2 3}111???0?01001?0010?0??3???????????????????{0 1}0?01???????1??{0 1}?01{1 2}11?0100?00100101200101?00????

Protopteryx {0 1}?{1 2}{0 2}1????????????????????????????00??????00????1???????10?????01????14????0??1???1111?0?11?{1 2}??200?00??01113221110?1??10???1????010?????????????11?????????1??000??{0 1}0001000000010???00????11?????????10????1?????0???????????00??0000??00??0{0 1}01?001110

Rapaxavis {0 1}022??1{0 1 2}?????????????????????????000???0?0???1?1?????1??01??11?1???024??0?0??10?011???0?00?{1 2}??0???0????11?322122111??20??0100??0000??{0 1}0???1111?10???1??0??11?00?010000120011?01230000?0??111101?111?1000????????0?0{0 1}?0?11??100?10000??002?0100?0011??

Shanweiniao {0 1}?{1 2}{2 3}??1????????????????????????????0????00??01??????1???????????????24???????1??01111???000{1 2}??000?00??011?22{1 2 3}?211?{0 1}??20???1?????00????????11???11????1?????????????????{0 1}0?11???22?????????1??????1??{1 2}?0?????{0 1}0??1??????????110??0000????1?{0 1}{0 1}?0?0?1{0 1}?1

Vescornis ?0?????{1 2}?????????????????????????0000???00{1 2}001?1??21?1??0???1??2????2???????00??0111??0?01?{1 2}??000?00??011?3221{1 2}??11??20?00110??0101?1{0 1}0???1111111??????1{0 2}011010?00{0 1}0?0120010{0 1}01220??0???????????????????????????0??{0 1}????????00??0010??011?{0 1}201?1011??

Vorona ??????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????101?11{0 1}?110101{1 2}100111111100100011?220100000????

Schizooura 0123111{1 2}????????????????????????11?0????10??01??0?{1 2}1?00?00?1??0{3 4 5}?1??{1 2}{3 4}?{1 2}0{1 2}?000??01111?0?1001??????0????11012{2 3}0{1 2}1011??1??1?000??0{1 2}0010{0 1}0???01?0?10?????00?31??0020?001?02001010103?0??1{0 1}1???0101?1?0111?????{1 2}?0?????{1 2}???????11?010?00001{0 1}2?011000010?1

Archaeornithura ???????????????????????????????????????????????????????????????{2 3}???0{1 2}4??1110001?011111?010110?211000?0?2101230{1 2}?111???????0??100100?0{0 1}????0110?11?????0??31??0{1 2}?1?{0 1}01?00100010101?0????????01001{1 2}??011????2??0??1?0????10021110?1?01???{0 1}??0120?001111

Jianchangornis ?????????????????????????????????1????????????????1?????010?200{2 3 4}0???????????????0111110010020?010????0121?02{2 3}0{2 3}1011??{0 1}??0?000000100100000001?0111?????0???1??01?00000000101010103??01?{0 1}?????????{1 2}?001????????00???0??0?10??11{1 2}0?0000??????0100?00???0

Dingavis {0 1}023??1??????????????????????????1?10???000???????2?????????????????24?????000??0?1????????????10000??1????2{2 3}?{1 2}???????0?010??00000?????1???????1?????????21??02?1?000002101010102?0??????11???11{1 2}??011?02{0 1}2?{1 2}0??1??{1 2}{1 2}??????112011???00102?02{1 2}0?0011??

Liaoningornis ???????????????????????????????????????????????????????????????????????????????????????????????????????????{1 2}2?0??1{1 2}??30???????????????????0?????1???????????????????????????????????????????????????????????????????????????110?001????1{1 2}?0100?001{1 2}??

Songlingornis ???{0 1}?????????????????????????????000?????0?????1????????????2????????????????????11?????101???2????????21?023012111??41??????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????

Ambiortus ??????????????????????????????????????????????????01?0??????20???????????????????1?111001???1?{1 2}1??01???210??????????????1000100?10?????????????????????0?3????{1 2}?????????1010?????????????????????????????????????????????????????????????????????????

Longicrusavis 10{1 2}01?0???????????????????????????00???101??01????11?11?0???20???????????????????1111100?0????{1 2}1100??01210?23?120110?10?110?01?11012011100010001100???0??31110??00010100100010101???????11??1???{1 2}??0?????????01?10022{0 1}121?1112011100??10100100?0011??

Apsaravis ??????????????????????????1{0 1}?????1?1????1????????021?1?201??00?4??0?24?10????????1111100001111111001001????{1 2}30???11?????11001000101110000111111110121101?311001110110???1????????100011111?111012??121101{1 2}?110??1???20121??11{1 2}?111001?1?200100?00????

Hongshanornis ?020?11??????????1???????????????100???101??0???????????????1???????24???????01?0111110010????211??0?0121?12??2201???10?110?????10???1????0????11????????31??00?0??00?01101010101??????????0??01{1 2}???{1 2}1???????????0?{1 2}???????1120?0?00?0?0??0200?001111

Yanornis 10{1 2}1110??1????????1?????????????1000???1?00?01?1??0?????01??2003??0?????????????01111110100?0?210000??121?02301211{1 2}??41?11001??010110{0 1}????0100011?0?11?0?31110000000010110101012310100?11?10100?11?010??1???????1?0??0??0??111011?00{0 1}??12?0100?0011??

Iteravis ?023110??????????????????????????00?0??1?0??00?1???1?01?01?02?0????024?1???000??0111110?10?10?210????0121002301201{1 2}??{0 1}1???000??0{0 1}0??0?0????1?0?11?1???01??1?001{0 2}11010?0210100?122100?1?0?1?0101?110010?111???0?????{1 2}??111??11211110?{0 1}?102?1210?0011??

Patagopteryx ????????????????1?11110001111????????????0??000?11211011001100031101??120????????1111100000?0?11100?0??????2{1 2}????10?????1001???1000?0?00000100?0000?0?0?????????0??1?1??0?00???20?0001000001110121?021?0??20????1001?0?01111120101001110000?00?0001??

Hollanda ???????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????1101100022002012111000212{1 2 3}1112{1 2}0?0001?????

Yixianornis 1121???????????????????0???1?1???0?0???110?????1??1?1??2011?1003??0?24????1000{1 2}00111110010010?210000001210?2301111?0?41??10??11??0?0?0?11001?0?100021?0??3111012100001?1101010102100?1??00?01??11??01???1?2?101?100????????11{1 2}01?0001110?0010??0011?1

Gansus ?????????????????????????????????????????????????121?1?201111004001024?20210000?1111110010020?3100??0012100230210100?10?11001??010130?1???010011100111?0?312?01110001?121010001321?0011110101011210011001{1 2}?1101?100{1 2}2?0?0?211201110010102?020000011??

Ichthyornis 21{1 2}???0?????????111111??1111???01001????0021011111{0 1}11012011120?{3 4}?0102401021000???111111010010?2110100012?002300??1?12?011100110010120110?101000110021101?31210121010010?1111????310?01011??1101121?12?101221101?100221110?2112011202?01?210200000????

Hesperornis 11231103?1021011?111111000111?1?10100??100010101?021001211112004010?130202100010?0101?00?0010?010???000200?21?0??0111?00??????0?????1000000??????????????????????????????????????1000121101110012101211021222011101221111121120112?21013223220102????

Parahesperornis 1123??0???0?10??1?111???00111????01????????????1?02100121111200?????1?????10001??0101?0??0010?0????????????2???????1??????????????????????????????????????????????????????????????????????????????????1021222011101221111???1201?2?2101?223220002????

Enaliornis ??????????????????????????11??????????????????????21?0??1???2????????????????????????????????????????????????????????????????????????????????????????????????????????????????????1??????1???????2?????1012212011101221111???1201???1101???0120000????

Baptornis\_advenus 1??3??????????????11???00?111???????0??1?0?10101?021001?11112004010?13020?100011?0101?0010010?0?????0??????2{1 2}????0111??0????????????1000000????00000100?????????????????????????010001211011100121012110112120111012211111211201?2?11013221120001????

Baptornis\_varneri ?????????????????????????????????????????????????021?01?1??1?????????????????????????????????????????????????????????????????????????????????????????????????????????????????????10????1???1100?210121?????2201?1012211111211201?2?1101?221220001????

Limenavis ????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????????111?0001000??00111???3121031?????10?10???????????????????????????????????????????????????????????????????????????

Vegavis ??????????????????????????????????????????????????2????????????{5 6}?????????????????1111?00?001??110?00????????????????????1?0???????????????????????????1??????????????????????????01???1?????01??2??????0112110??1?02?2?1????12011???3?1????1???0?????

Anas 2123011310111111111111111112112111?102100001011?102110121111000601202402021000201111111010020?210000001210023111001133011100111100030111110100001001110123120132111111021011??12311011111010111121012110112110111002220111211201120130132102200001011

Gallus 1123111311121111111111111112112111?102000001011?102110121111001601202402021000201111111010020?211000001210123110101122011100111100030111111100011001110113120132102101121011??12111011211011011121012110112110111002220111211201120130132201201001011

Archaeorhynchus 1013111{1 2}?????????????????????????1?00??00000??1???01?0??0??1???2000?2401111???{1 2}001111?0010?20?110000?0121002{2 3}1{1 2}2111??20?11000??010???00???0110?10????101?31??002010000021010101030000????1?01001{1 2}10010??????????0?0{1 2}00????2111010100??0?0?0100?00?0??

LNTU\_WLMP\_18 ??23?11??????????????????????????1?????0?????????????????????????????????????????111????10????10????????????????????????11?????000???0????0????10?????????1??00?0????0?2????????2?00???0?1?01001{1 2}1?01??0????????0????????????0?10?0????????0?0?0??0??

;

END;

BEGIN ASSUMPTIONS;

TYPESET \* UNTITLED = unord: 2 4- 7 9- 27 29- 30 32- 42 44- 50 52- 55 57- 63 65- 66 68-71\3 73 75- 91 93- 106 108- 116 118- 158 160- 167 169- 175 177- 182 184- 192 194- 196 198- 204 206- 212 215 217- 218 220- 221 223- 228 230- 232 235- 245, ord: 1 3 8 28-31\3 43 51 56 64-67\3 69- 70 72 74 92 107 117 159 168 176 183 193 197 205 213- 214 216-222\3 229 233- 234;

END;

BEGIN MESQUITECHARMODELS;

ProbModelSet \* UNTITLED = 'Mk1 (est.)': 1- 245;

END;

BEGIN TREES;

Title 'Trees from "Archaeorhynchus\_SC\_iW.nex"';

ID 016a69570e0010;

LINK Taxa = Taxa;

TRANSLATE

[0] 1 Dromaeosauridae,

[1] 2 Archaeopteryx,

[2] 3 Jeholornis,

[3] 4 Sapeornis,

[4] 5 Confuciusornis\_sanctus,

[5] 6 Confuciusornis\_dui,

[6] 7 Changchengornis,

[7] 8 Eoconfuciusornis,

[8] 9 Chaoyangia,

[9] 10 Xinghaiornis,

[10] 11 Eogranivora,

[11] 12 Parahongshan,

[12] 13 Zhongjianornis,

[13] 14 Boluochia,

[14] 15 Shenqiornis,

[15] 16 Cathyaornis,

[16] 17 Concornis,

[17] 18 Elsornis,

[18] 19 Eoalulavis,

[19] 20 Eocathayornis,

[20] 21 Eoenantiornis,

[21] 22 Gobipteryx,

[22] 23 Iberomesornis,

[23] 24 Longipteryx,

[24] 25 Longirostravis,

[25] 26 Neuquenornis,

[26] 27 Otogornis,

[27] 28 Eopengornis,

[28] 29 Pengornis,

[29] 30 Protopteryx,

[30] 31 Rapaxavis,

[31] 32 Shanweiniao,

[32] 33 Vescornis,

[33] 34 Vorona,

[34] 35 Schizooura,

[35] 36 Archaeornithura,

[36] 37 Jianchangornis,

[37] 38 Dingavis,

[38] 39 Liaoningornis,

[39] 40 Songlingornis,

[40] 41 Ambiortus,

[41] 42 Longicrusavis,

[42] 43 Apsaravis,

[43] 44 Hongshanornis,

[44] 45 Yanornis,

[45] 46 Iteravis,

[46] 47 Patagopteryx,

[47] 48 Hollanda,

[48] 49 Yixianornis,

[49] 50 Gansus,

[50] 51 Ichthyornis,

[51] 52 Hesperornis,

[52] 53 Parahesperornis,

[53] 54 Enaliornis,

[54] 55 Baptornis\_advenus,

[55] 56 Baptornis\_varneri,

[56] 57 Limenavis,

[57] 58 Vegavis,

[58] 59 Anas,

[59] 60 Gallus,

[60] 61 Archaeorhynchus,

[61] 62 LNTU\_WLMP\_18;

TREE tnt\_126 = (1,(2,(3,((8,(6,(5,7))),(4,((18,(27,30,(28,29),(20,((14,24),(23,31,(25,32)))),(26,(21,((15,(22,33)),((16,17),(19,39))))))),(37,((12,(11,(61,62))),((9,10,13,34,35),(38,((46,(41,(43,47))),((42,44),((36,40,45,48,49),(50,((51,(57,(59,(58,60)))),(54,(55,(56,(52,53)))))))))))))))))));

END;

BEGIN TREES[!'tree(s) from TNT, for data in C:\Users\FothC\Desktop\Archaeorhynchus\_3.tnt'];

Title impliedW;

ID 0173058a18063;

LINK Taxa = Taxa;

TRANSLATE

[0] 1 Dromaeosauridae,

[1] 2 Archaeopteryx,

[2] 3 Jeholornis,

[3] 4 Sapeornis,

[4] 5 Confuciusornis\_sanctus,

[5] 6 Confuciusornis\_dui,

[6] 7 Changchengornis,

[7] 8 Eoconfuciusornis,

[8] 9 Chaoyangia,

[9] 10 Xinghaiornis,

[10] 11 Eogranivora,

[11] 12 Parahongshan,

[12] 13 Zhongjianornis,

[13] 14 Boluochia,

[14] 15 Shenqiornis,

[15] 16 Cathyaornis,

[16] 17 Concornis,

[17] 18 Elsornis,

[18] 19 Eoalulavis,

[19] 20 Eocathayornis,

[20] 21 Eoenantiornis,

[21] 22 Gobipteryx,

[22] 23 Iberomesornis,

[23] 24 Longipteryx,

[24] 25 Longirostravis,

[25] 26 Neuquenornis,

[26] 27 Otogornis,

[27] 28 Eopengornis,

[28] 29 Pengornis,

[29] 30 Protopteryx,

[30] 31 Rapaxavis,

[31] 32 Shanweiniao,

[32] 33 Vescornis,

[33] 34 Vorona,

[34] 35 Schizooura,

[35] 36 Archaeornithura,

[36] 37 Jianchangornis,

[37] 38 Dingavis,

[38] 39 Liaoningornis,

[39] 40 Songlingornis,

[40] 41 Ambiortus,

[41] 42 Longicrusavis,

[42] 43 Apsaravis,

[43] 44 Hongshanornis,

[44] 45 Yanornis,

[45] 46 Iteravis,

[46] 47 Patagopteryx,

[47] 48 Hollanda,

[48] 49 Yixianornis,

[49] 50 Gansus,

[50] 51 Ichthyornis,

[51] 52 Hesperornis,

[52] 53 Parahesperornis,

[53] 54 Enaliornis,

[54] 55 Baptornis\_advenus,

[55] 56 Baptornis\_varneri,

[56] 57 Limenavis,

[57] 58 Vegavis,

[58] 59 Anas,

[59] 60 Gallus,

[60] 61 Archaeorhynchus,

[61] 62 LNTU\_WLMP\_18;

TREE Imported\_tree\_1 = (1,(2,(3,((4,((37,(((9,10,13,34,35),(38,((((36,40,45,48,49),(50,((51,(57,(59,(58,60)))),(54,(55,(56,(52,53))))))),(42,44)),(46,(41,(43,47)))))),(12,(11,(61,62))))),(18,(27,30,(20,((14,24),(23,31,(25,32)))),(26,(21,((15,(22,33)),((16,17),(19,39))))),(28,29))))),(8,(6,(5,7)))))));

END;

BEGIN TREES[!'tree(s) from TNT, for data in C:\Users\FothC\Desktop\Archaeorhynchus\_3.tnt'];

Title noW;

ID 017305b711215;

LINK Taxa = Taxa;

TRANSLATE

[0] 1 Dromaeosauridae,

[1] 2 Archaeopteryx,

[2] 3 Jeholornis,

[3] 4 Sapeornis,

[4] 5 Confuciusornis\_sanctus,

[5] 6 Confuciusornis\_dui,

[6] 7 Changchengornis,

[7] 8 Eoconfuciusornis,

[8] 9 Chaoyangia,

[9] 10 Xinghaiornis,

[10] 11 Eogranivora,

[11] 12 Parahongshan,

[12] 13 Zhongjianornis,

[13] 14 Boluochia,

[14] 15 Shenqiornis,

[15] 16 Cathyaornis,

[16] 17 Concornis,

[17] 18 Elsornis,

[18] 19 Eoalulavis,

[19] 20 Eocathayornis,

[20] 21 Eoenantiornis,

[21] 22 Gobipteryx,

[22] 23 Iberomesornis,

[23] 24 Longipteryx,

[24] 25 Longirostravis,

[25] 26 Neuquenornis,

[26] 27 Otogornis,

[27] 28 Eopengornis,

[28] 29 Pengornis,

[29] 30 Protopteryx,

[30] 31 Rapaxavis,

[31] 32 Shanweiniao,

[32] 33 Vescornis,

[33] 34 Vorona,

[34] 35 Schizooura,

[35] 36 Archaeornithura,

[36] 37 Jianchangornis,

[37] 38 Dingavis,

[38] 39 Liaoningornis,

[39] 40 Songlingornis,

[40] 41 Ambiortus,

[41] 42 Longicrusavis,

[42] 43 Apsaravis,

[43] 44 Hongshanornis,

[44] 45 Yanornis,

[45] 46 Iteravis,

[46] 47 Patagopteryx,

[47] 48 Hollanda,

[48] 49 Yixianornis,

[49] 50 Gansus,

[50] 51 Ichthyornis,

[51] 52 Hesperornis,

[52] 53 Parahesperornis,

[53] 54 Enaliornis,

[54] 55 Baptornis\_advenus,

[55] 56 Baptornis\_varneri,

[56] 57 Limenavis,

[57] 58 Vegavis,

[58] 59 Anas,

[59] 60 Gallus,

[60] 61 Archaeorhynchus,

[61] 62 LNTU\_WLMP\_18;

TREE Imported\_tree\_1 = (1,(2,(3,((4,(9,10,11,12,13,15,16,17,18,19,20,21,22,23,26,27,28,29,30,31,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,61,62,(14,24),(25,32),(51,54,57,58,59,60,(55,(56,(52,53)))))),(8,(6,(5,7)))))));

TREE Imported\_tree\_2 = (1,(2,(3,((4,((37,(((9,10,13,35),(36,38,40,41,42,43,44,45,46,47,48,49,50,(51,(54,(55,(56,(52,53)))),(59,60)))),(12,(61,62)))),(15,16,17,18,19,20,21,22,26,27,28,29,30,33,(14,24),(31,(25,32))))),(8,(6,(5,7)))))));

END;

BEGIN NOTES;

SU C = 234 N = selected B = TRUE;

END;

Begin MESQUITE;

MESQUITESCRIPTVERSION 2;

TITLE AUTO;

tell ProjectCoordinator;

timeSaved 1604157040857;

getEmployee #mesquite.minimal.ManageTaxa.ManageTaxa;

tell It;

setID 0 3755921079605136639;

endTell;

getEmployee #mesquite.charMatrices.ManageCharacters.ManageCharacters;

tell It;

setID 0 2309371456598773378;

tell It;

setSelected 234;

attachments ;

endTell;

mqVersion 351;

checksumv 0 3 2895696770 null getNumChars 245 numChars 245 getNumTaxa 62 numTaxa 62 short true bits 2305843009213694079 states 127 sumSquaresStatesOnly 71071.0 sumSquares -1.5264680720994654E21 longCompressibleToShort false usingShortMatrix true NumFiles 1 NumMatrices 1;

mqVersion;

endTell;

getWindow;

tell It;

suppress;

setResourcesState false false 100;

setPopoutState 300;

setExplanationSize 0;

setAnnotationSize 0;

setFontIncAnnot 0;

setFontIncExp 0;

setSize 1920 971;

setLocation -8 -8;

setFont SanSerif;

setFontSize 10;

getToolPalette;

tell It;

endTell;

desuppress;

endTell;

getEmployee #mesquite.trees.BasicTreeWindowCoord.BasicTreeWindowCoord;

tell It;

makeTreeWindow #3755921079605136639 #mesquite.trees.BasicTreeWindowMaker.BasicTreeWindowMaker;

tell It;

suppressEPCResponse;

setTreeSource #mesquite.trees.StoredTrees.StoredTrees;

tell It;

setTreeBlock 1;

setTreeBlockID 016a69570e0010;

toggleUseWeights off;

endTell;

setAssignedID 1450.1556545477457.2640129391571149422;

getTreeWindow;

tell It;

setExplanationSize 30;

setAnnotationSize 20;

setFontIncAnnot 0;

setFontIncExp 0;

setSize 1820 899;

setLocation -8 -8;

setFont SanSerif;

setFontSize 10;

getToolPalette;

tell It;

endTell;

getTreeDrawCoordinator #mesquite.trees.BasicTreeDrawCoordinator.BasicTreeDrawCoordinator;

tell It;

suppress;

setTreeDrawer #mesquite.trees.SquareLineTree.SquareLineTree;

tell It;

setNodeLocs #mesquite.trees.NodeLocsStandard.NodeLocsStandard;

tell It;

branchLengthsToggle off;

toggleScale on;

toggleBroadScale off;

toggleCenter on;

toggleEven on;

setFixedTaxonDistance 0;

endTell;

setEdgeWidth 6;

showEdgeLines on;

orientUp;

endTell;

setBackground White;

setBranchColor Black;

showNodeNumbers off;

showBranchColors on;

labelBranchLengths off;

centerBrLenLabels on;

showBrLensUnspecified on;

showBrLenLabelsOnTerminals on;

setBrLenLabelColor 0 0 255;

setNumBrLenDecimals 6;

desuppress;

getEmployee #mesquite.trees.BasicDrawTaxonNames.BasicDrawTaxonNames;

tell It;

setFontSize 14;

setColor Black;

toggleColorPartition off;

toggleColorAssigned on;

toggleShadePartition off;

toggleShowFootnotes on;

toggleNodeLabels on;

toggleCenterNodeNames off;

toggleShowNames on;

namesAngle ?;

endTell;

endTell;

setTreeNumber 1;

setDrawingSizeMode 0;

toggleLegendFloat on;

scale 0;

toggleTextOnTree off;

togglePrintName on;

showWindow;

newAssistant #mesquite.ancstates.TraceCharacterHistory.TraceCharacterHistory;

tell It;

suspend ;

setDisplayMode #mesquite.ancstates.ShadeStatesOnTree.ShadeStatesOnTree;

tell It;

toggleLabels off;

togglePredictions off;

toggleGray off;

endTell;

setHistorySource #mesquite.ancstates.RecAncestralStates.RecAncestralStates;

tell It;

getCharacterSource #mesquite.charMatrices.CharSrcCoordObed.CharSrcCoordObed;

tell It;

setCharacterSource #mesquite.charMatrices.StoredCharacters.StoredCharacters;

tell It;

setDataSet #2309371456598773378;

endTell;

endTell;

setMethod #mesquite.parsimony.ParsAncestralStates.ParsAncestralStates;

tell It;

setModelSource #mesquite.parsimony.CurrentParsModels.CurrentParsModels;

toggleMPRsMode off;

endTell;

toggleShowSelectedOnly off;

endTell;

setCharacter 209;

setMapping 1;

toggleShowLegend on;

setColorMode 0;

toggleWeights on;

setInitialOffsetX 911;

setInitialOffsetY -272;

setLegendWidth 142;

setLegendHeight 132;

resume ;

endTell;

endTell;

desuppressEPCResponse;

getEmployee #mesquite.trees.ColorBranches.ColorBranches;

tell It;

setColor Red;

removeColor off;

endTell;

getEmployee #mesquite.ornamental.BranchNotes.BranchNotes;

tell It;

setAlwaysOn off;

endTell;

getEmployee #mesquite.ornamental.ColorTreeByPartition.ColorTreeByPartition;

tell It;

colorByPartition off;

endTell;

getEmployee #mesquite.ornamental.DrawTreeAssocDoubles.DrawTreeAssocDoubles;

tell It;

setOn on;

toggleShow consensusFrequency;

toggleShow posteriorProbability;

toggleShow bootstrapFrequency;

toggleShow consensusFrequency;

toggleShow posteriorProbability;

toggleShow bootstrapFrequency;

setDigits 4;

setThreshold ?;

writeAsPercentage off;

toggleCentred off;

toggleHorizontal on;

toggleWhiteEdges on;

toggleShowOnTerminals on;

setFontSize 10;

setOffset 0 0;

endTell;

getEmployee #mesquite.ornamental.DrawTreeAssocStrings.DrawTreeAssocStrings;

tell It;

setOn on;

toggleCentred on;

toggleHorizontal on;

setFontSize 10;

setOffset 0 0;

toggleShowOnTerminals on;

endTell;

getEmployee #mesquite.trees.TreeInfoValues.TreeInfoValues;

tell It;

panelOpen false;

endTell;

endTell;

makeTreeWindow #3755921079605136639 #mesquite.trees.BasicTreeWindowMaker.BasicTreeWindowMaker;

tell It;

suppressEPCResponse;

setTreeSource #mesquite.trees.StoredTrees.StoredTrees;

tell It;

setTreeBlock 2;

setTreeBlockID 0173058a18063;

toggleUseWeights off;

endTell;

setAssignedID 1062.1593525810404.8530862379858682175;

getTreeWindow;

tell It;

setExplanationSize 30;

setAnnotationSize 20;

setFontIncAnnot 0;

setFontIncExp 0;

setSize 1820 899;

setLocation -8 -8;

setFont SanSerif;

setFontSize 18;

getToolPalette;

tell It;

setTool mesquite.trees.BasicTreeWindowMaker.BasicTreeWindow.ladderize;

endTell;

getTreeDrawCoordinator #mesquite.trees.BasicTreeDrawCoordinator.BasicTreeDrawCoordinator;

tell It;

suppress;

setTreeDrawer #mesquite.trees.SquareLineTree.SquareLineTree;

tell It;

setNodeLocs #mesquite.trees.NodeLocsStandard.NodeLocsStandard;

tell It;

branchLengthsToggle off;

toggleScale on;

toggleBroadScale off;

toggleCenter on;

toggleEven on;

setFixedTaxonDistance 0;

endTell;

setEdgeWidth 4;

showEdgeLines on;

orientUp;

endTell;

setBackground White;

setBranchColor Black;

showNodeNumbers off;

showBranchColors on;

labelBranchLengths off;

centerBrLenLabels on;

showBrLensUnspecified on;

showBrLenLabelsOnTerminals on;

setBrLenLabelColor 0 0 255;

setNumBrLenDecimals 6;

desuppress;

getEmployee #mesquite.trees.BasicDrawTaxonNames.BasicDrawTaxonNames;

tell It;

setColor Black;

toggleColorPartition off;

toggleColorAssigned on;

toggleShadePartition off;

toggleShowFootnotes on;

toggleNodeLabels on;

toggleCenterNodeNames off;

toggleShowNames on;

namesAngle ?;

endTell;

endTell;

setTreeNumber 1;

setTree '(1,(2,(3,((8,(6,(5,7))),(4,((18,(27,30,(28,29),(20,((14,24),(23,31,(25,32)))),(26,(21,((15,(22,33)),((16,17),(19,39))))))),(37,((12,(11,(61,62))),((9,10,13,34,35),(38,((46,(41,(43,47))),((42,44),((36,40,45,48,49),(50,((51,(57,(59,(58,60)))),(54,(55,(56,(52,53)))))))))))))))))));';

setDrawingSizeMode 0;

toggleLegendFloat on;

scale 0;

toggleTextOnTree off;

togglePrintName off;

showWindow;

endTell;

desuppressEPCResponse;

getEmployee #mesquite.trees.ColorBranches.ColorBranches;

tell It;

setColor Red;

removeColor off;

endTell;

getEmployee #mesquite.ornamental.BranchNotes.BranchNotes;

tell It;

setAlwaysOn off;

endTell;

getEmployee #mesquite.ornamental.ColorTreeByPartition.ColorTreeByPartition;

tell It;

colorByPartition off;

endTell;

getEmployee #mesquite.ornamental.DrawTreeAssocDoubles.DrawTreeAssocDoubles;

tell It;

setOn on;

toggleShow consensusFrequency;

toggleShow posteriorProbability;

toggleShow bootstrapFrequency;

toggleShow consensusFrequency;

toggleShow posteriorProbability;

toggleShow bootstrapFrequency;

setDigits 4;

setThreshold ?;

writeAsPercentage off;

toggleCentred off;

toggleHorizontal on;

toggleWhiteEdges on;

toggleShowOnTerminals on;

setFontSize 10;

setOffset 0 0;

endTell;

getEmployee #mesquite.ornamental.DrawTreeAssocStrings.DrawTreeAssocStrings;

tell It;

setOn on;

toggleCentred on;

toggleHorizontal on;

setFontSize 10;

setOffset 0 0;

toggleShowOnTerminals on;

endTell;

getEmployee #mesquite.trees.TreeInfoValues.TreeInfoValues;

tell It;

panelOpen false;

endTell;

endTell;

makeTreeWindow #3755921079605136639 #mesquite.trees.BasicTreeWindowMaker.BasicTreeWindowMaker;

tell It;

suppressEPCResponse;

setTreeSource #mesquite.trees.StoredTrees.StoredTrees;

tell It;

setTreeBlock 3;

setTreeBlockID 017305b711215;

toggleUseWeights off;

endTell;

setAssignedID 1098.1593528762765.8004419246843195627;

getTreeWindow;

tell It;

setExplanationSize 30;

setAnnotationSize 20;

setFontIncAnnot 0;

setFontIncExp 0;

setSize 1820 899;

setLocation -8 -8;

setFont SanSerif;

setFontSize 18;

getToolPalette;

tell It;

setTool mesquite.trees.BasicTreeWindowMaker.BasicTreeWindow.ladderize;

endTell;

getTreeDrawCoordinator #mesquite.trees.BasicTreeDrawCoordinator.BasicTreeDrawCoordinator;

tell It;

suppress;

setTreeDrawer #mesquite.trees.SquareLineTree.SquareLineTree;

tell It;

setNodeLocs #mesquite.trees.NodeLocsStandard.NodeLocsStandard;

tell It;

branchLengthsToggle off;

toggleScale on;

toggleBroadScale off;

toggleCenter on;

toggleEven on;

setFixedTaxonDistance 0;

endTell;

setEdgeWidth 4;

showEdgeLines on;

orientUp;

endTell;

setBackground White;

setBranchColor Black;

showNodeNumbers off;

showBranchColors on;

labelBranchLengths off;

centerBrLenLabels on;

showBrLensUnspecified on;

showBrLenLabelsOnTerminals on;

setBrLenLabelColor 0 0 255;

setNumBrLenDecimals 6;

desuppress;

getEmployee #mesquite.trees.BasicDrawTaxonNames.BasicDrawTaxonNames;

tell It;

setColor Black;

toggleColorPartition off;

toggleColorAssigned on;

toggleShadePartition off;

toggleShowFootnotes on;

toggleNodeLabels on;

toggleCenterNodeNames off;

toggleShowNames on;

namesAngle ?;

endTell;

endTell;

setTreeNumber 2;

setTree '(1,(2,(3,((8,(6,(5,7))),(4,((15,16,17,18,19,20,21,22,26,27,28,29,30,33,(14,24),(31,(25,32))),(37,((12,(61,62)),((9,10,13,35),(36,38,40,41,42,43,44,45,46,47,48,49,50,(51,(59,60),(54,(55,(56,(52,53)))))))))))))));';

setDrawingSizeMode 0;

toggleLegendFloat on;

scale 0;

toggleTextOnTree off;

togglePrintName off;

showWindow;

endTell;

desuppressEPCResponse;

getEmployee #mesquite.trees.ColorBranches.ColorBranches;

tell It;

setColor Red;

removeColor off;

endTell;

getEmployee #mesquite.ornamental.BranchNotes.BranchNotes;

tell It;

setAlwaysOn off;

endTell;

getEmployee #mesquite.ornamental.ColorTreeByPartition.ColorTreeByPartition;

tell It;

colorByPartition off;

endTell;

getEmployee #mesquite.ornamental.DrawTreeAssocDoubles.DrawTreeAssocDoubles;

tell It;

setOn on;

toggleShow consensusFrequency;

toggleShow posteriorProbability;

toggleShow bootstrapFrequency;

toggleShow consensusFrequency;

toggleShow posteriorProbability;

toggleShow bootstrapFrequency;

setDigits 4;

setThreshold ?;

writeAsPercentage off;

toggleCentred off;

toggleHorizontal on;

toggleWhiteEdges on;

toggleShowOnTerminals on;

setFontSize 10;

setOffset 0 0;

endTell;

getEmployee #mesquite.ornamental.DrawTreeAssocStrings.DrawTreeAssocStrings;

tell It;

setOn on;

toggleCentred on;

toggleHorizontal on;

setFontSize 10;

setOffset 0 0;

toggleShowOnTerminals on;

endTell;

getEmployee #mesquite.trees.TreeInfoValues.TreeInfoValues;

tell It;

panelOpen false;

endTell;

endTell;

endTell;

getEmployee #mesquite.charMatrices.BasicDataWindowCoord.BasicDataWindowCoord;

tell It;

showDataWindow #2309371456598773378 #mesquite.charMatrices.BasicDataWindowMaker.BasicDataWindowMaker;

tell It;

getWindow;

tell It;

setExplanationSize 30;

setAnnotationSize 20;

setFontIncAnnot 0;

setFontIncExp 0;

setSize 1820 899;

setLocation -8 -8;

setFont SanSerif;

setFontSize 10;

getToolPalette;

tell It;

setTool mesquite.charMatrices.BasicDataWindowMaker.BasicDataWindow.arrow;

endTell;

setActive;

setTool mesquite.charMatrices.BasicDataWindowMaker.BasicDataWindow.arrow;

colorCells #mesquite.charMatrices.ColorByState.ColorByState;

tell It;

setStateLimit 9;

toggleUniformMaximum on;

endTell;

colorRowNames #mesquite.charMatrices.TaxonGroupColor.TaxonGroupColor;

colorColumnNames #mesquite.charMatrices.CharGroupColor.CharGroupColor;

colorText #mesquite.charMatrices.NoColor.NoColor;

setBackground White;

toggleShowNames on;

toggleShowTaxonNames on;

toggleTight off;

toggleThinRows off;

toggleShowChanges on;

toggleSeparateLines off;

toggleShowStates on;

toggleAutoWCharNames on;

toggleAutoTaxonNames off;

toggleShowDefaultCharNames off;

toggleConstrainCW on;

toggleBirdsEye off;

toggleShowPaleGrid off;

toggleShowPaleCellColors off;

toggleShowPaleExcluded off;

togglePaleInapplicable on;

toggleShowBoldCellText off;

toggleAllowAutosize on;

toggleColorsPanel off;

toggleDiagonal on;

setDiagonalHeight 80;

toggleLinkedScrolling on;

toggleScrollLinkedTables off;

endTell;

showWindow;

getWindow;

tell It;

forceAutosize;

endTell;

getEmployee #mesquite.charMatrices.AlterData.AlterData;

tell It;

toggleBySubmenus off;

endTell;

getEmployee #mesquite.charMatrices.ColorCells.ColorCells;

tell It;

setColor Red;

removeColor off;

endTell;

getEmployee #mesquite.categ.StateNamesStrip.StateNamesStrip;

tell It;

showStrip off;

endTell;

getEmployee #mesquite.charMatrices.AnnotPanel.AnnotPanel;

tell It;

togglePanel off;

endTell;

getEmployee #mesquite.charMatrices.CharReferenceStrip.CharReferenceStrip;

tell It;

showStrip off;

endTell;

getEmployee #mesquite.charMatrices.QuickKeySelector.QuickKeySelector;

tell It;

autotabOff;

endTell;

getEmployee #mesquite.charMatrices.SelSummaryStrip.SelSummaryStrip;

tell It;

showStrip off;

endTell;

getEmployee #mesquite.categ.SmallStateNamesEditor.SmallStateNamesEditor;

tell It;

panelOpen true;

endTell;

endTell;

endTell;

getEmployee #mesquite.charMatrices.ManageCharacters.ManageCharacters;

tell It;

showCharacters #2309371456598773378 #mesquite.lists.CharacterList.CharacterList;

tell It;

setData 0;

getWindow;

tell It;

useTargetValue off;

setTargetValue ;

newAssistant #mesquite.lists.DefaultCharOrder.DefaultCharOrder;

newAssistant #mesquite.lists.CharListInclusion.CharListInclusion;

newAssistant #mesquite.lists.CharListPartition.CharListPartition;

newAssistant #mesquite.parsimony.CharListParsModels.CharListParsModels;

setExplanationSize 30;

setAnnotationSize 20;

setFontIncAnnot 0;

setFontIncExp 0;

setSize 1820 899;

setLocation -8 -8;

setFont SanSerif;

setFontSize 10;

getToolPalette;

tell It;

endTell;

endTell;

showWindow;

getEmployee #mesquite.lists.CharListAnnotPanel.CharListAnnotPanel;

tell It;

togglePanel off;

endTell;

endTell;

endTell;

endTell;

end;