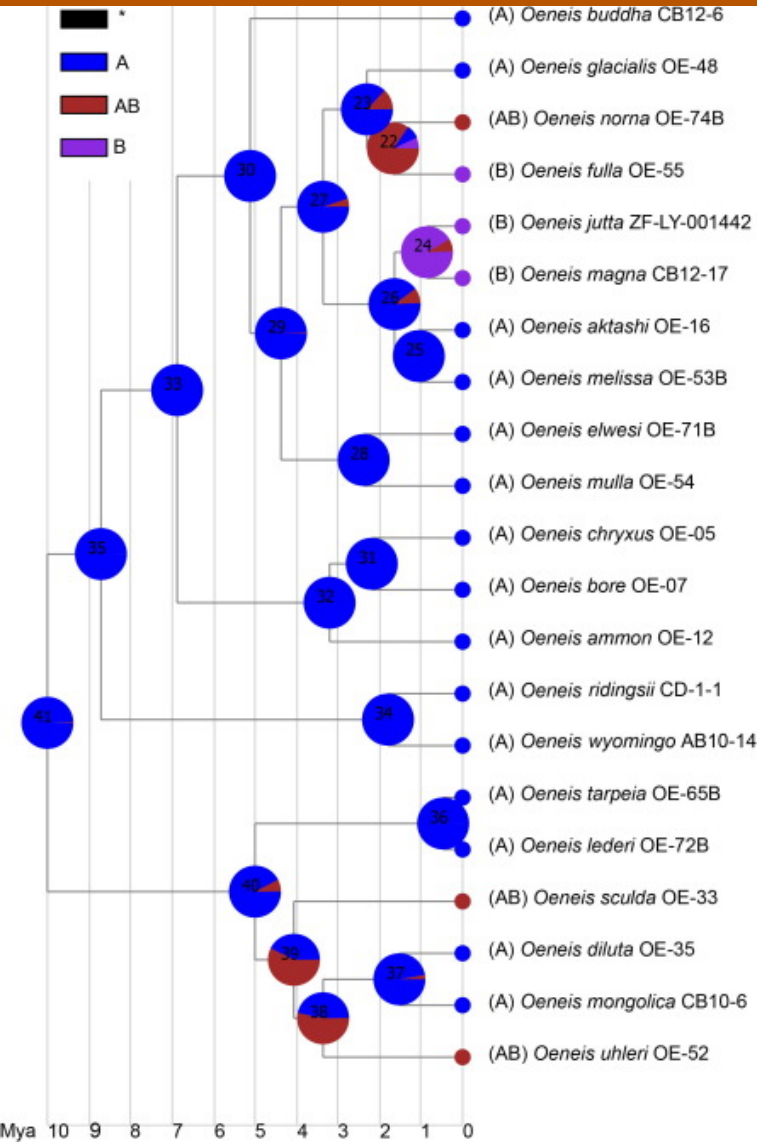

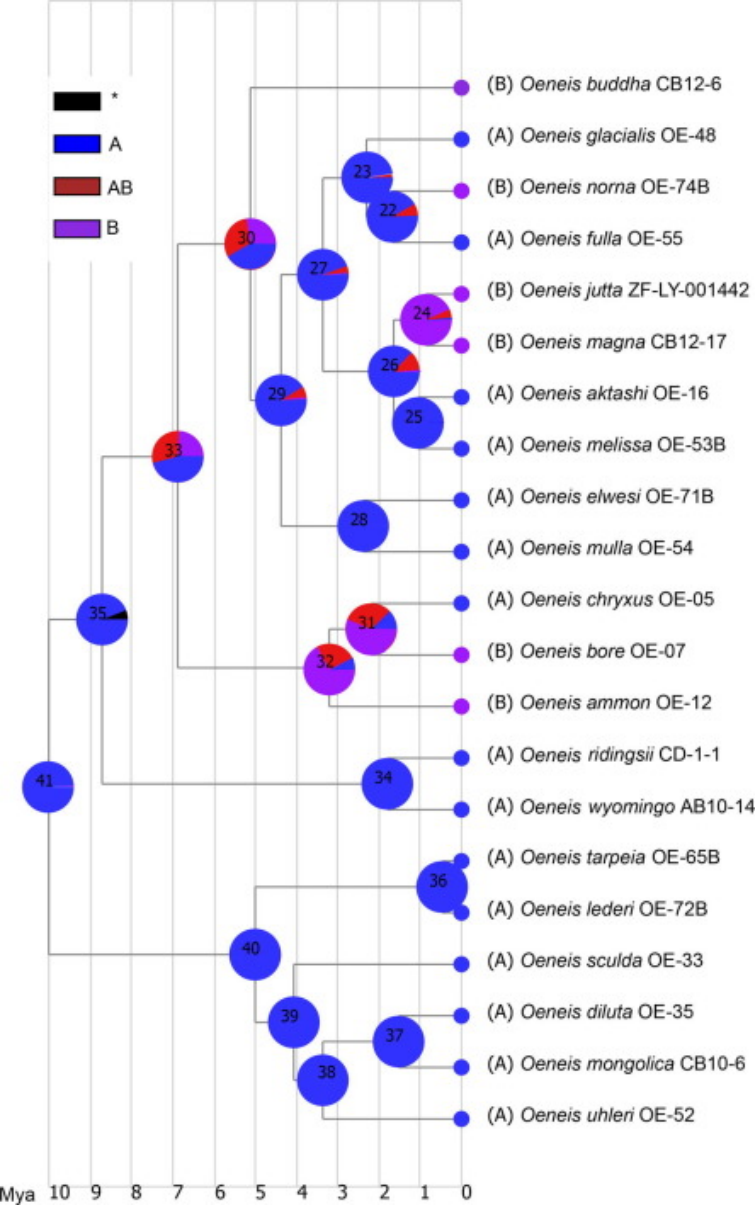
*
A
AB
B
(B) Oeneis buddha CB12-6
(A) Oeneis glacialis OE-48
(B) Oeneis norna OE-74B
(A) Oeneis fulla OE-55
(B) Oeneis jutta ZF-LY-001442
(B) Oeneis magna CB12-17
(A) Oeneis aktashi OE-16
(A) Oeneis melissa OE-53B
(A) Oeneis elwesi OE-71B
(A) Oeneis mulla OE-54
(A) Oeneis chryxus OE-05
(B) Oeneis bore OE-07
(B) Oeneis ammon OE-12
(A) Oeneis ridingsii CD-1-1
(A) Oeneis wyomingo AB10-14
(A) Oeneis tarpeia OE-65B
(A) Oeneis lederi OE-72B
(A) Oeneis sculda OE-33
(A) Oeneis diluta OE-35
(A) Oeneis mongolica CB10-6
(A) Oeneis uhleri OE-52
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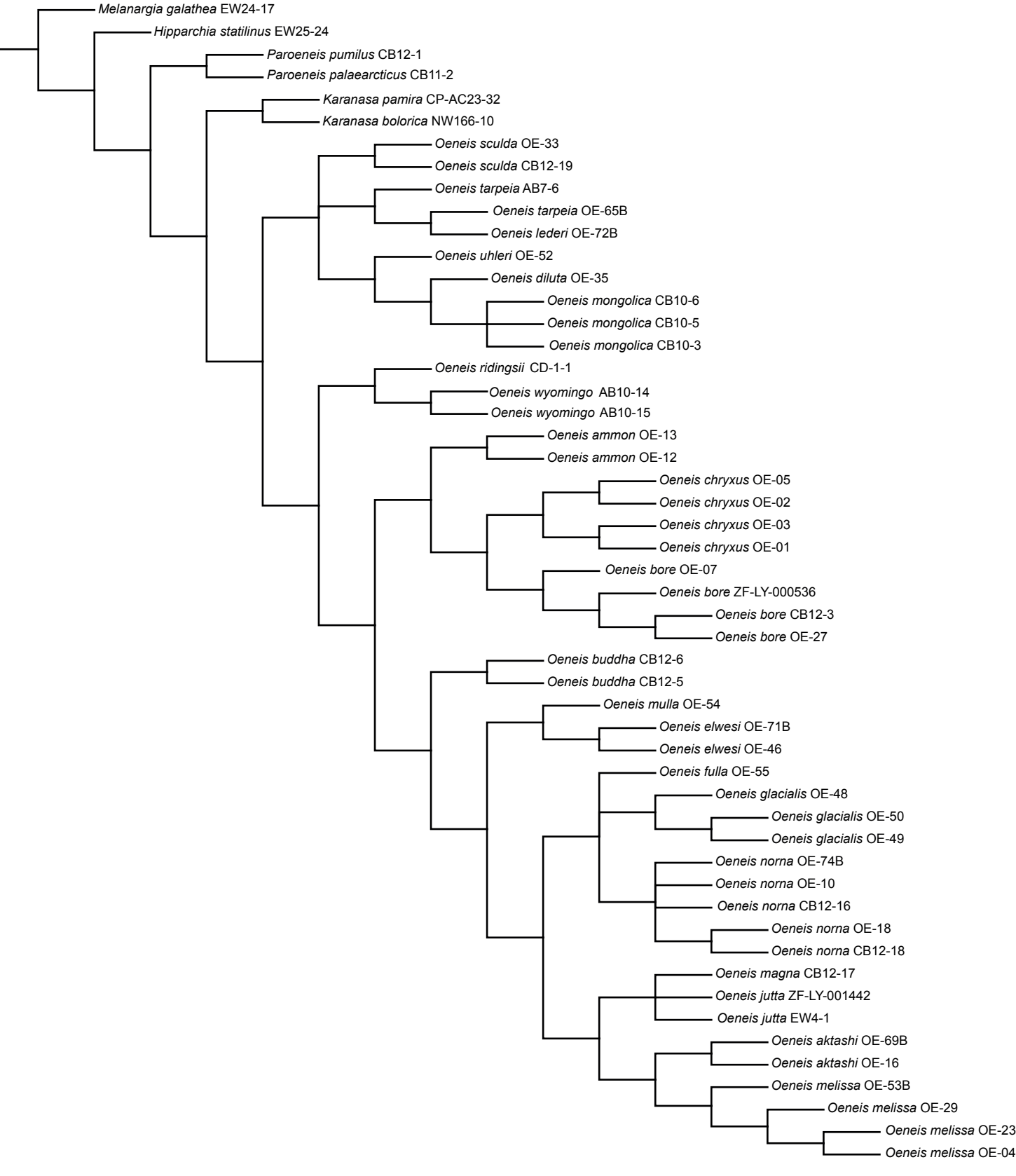
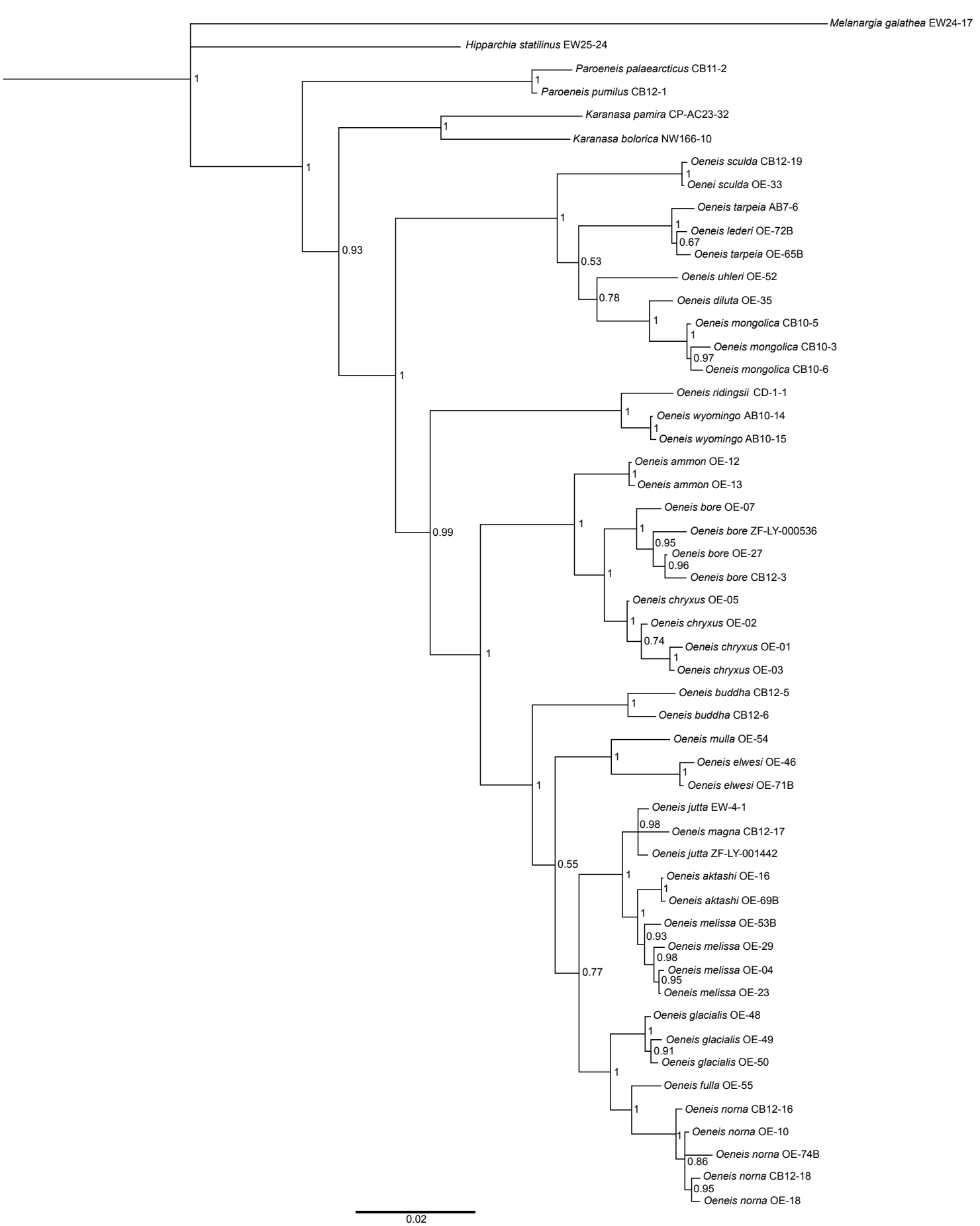

Melanargia galathea EW24-17
Hipparchia statilinus EW25-24
Paroeneis pumilus CB12-1
Paroeneis palaearcticus CB11-2
Karanasa pamira CP-AC23-32
Karanasa bolorica NW166-10
Oeneis sculda OE-33
Oeneis sculda CB12-19
Oeneis tarpeia AB7-6
Oeneis tarpeia OE-65B
Oeneis lederi OE-72B
Oeneis uhleri OE-52
Oeneis diluta OE-35
Oeneis mongolica CB10-6
Oeneis mongolica CB10-5
Oeneis mongolica CB10-3
Oeneis ridingsii CD-1-1
Oeneis wyomingo AB10-14
Oeneis wyomingo AB10-15
Oeneis ammon OE-13
Oeneis ammon OE-12
Oeneis chryxus OE-05
Oeneis chryxus OE-02
Oeneis chryxus OE-03
Oeneis chryxus OE-01
Oeneis bore OE-07
Oeneis bore ZF-LY-000536
Oeneis bore CB12-3
Oeneis bore OE-27
Oeneis buddha CB12-6
Oeneis buddha CB12-5
Oeneis mulla OE-54
Oeneis elwesi OE-71B
Oeneis elwesi OE-46
Oeneis fulla OE-55
Oeneis glacialis OE-48
Oeneis glacialis OE-50
Oeneis glacialis OE-49
Oeneis norna OE-74B
Oeneis norna OE-10
Oeneis norna CB12-16
Oeneis norna OE-18
Oeneis norna CB12-18
Oeneis magna CB12-17
Oeneis jutta ZF-LY-001442
Oeneis jutta EW4-1
Oeneis aktashi OE-69B
Oeneis aktashi OE-16
Oeneis melissa OE-53B
Oeneis melissa OE-29
Oeneis melissa OE-23
Oeneis melissa OE-04


Melanargia galathea EW24-17
Hipparchia statilinus EW25-24
Paroeneis palaearcticus CB11-2
Paroeneis pumilus CB12-1
Karanasa pamira CP-AC23-32
Karanasa bolorica NW166-10
Oeneis sculda CB12-19
Oenei sculda OE-33
Oeneis tarpeia AB7-6
Oeneis lederi OE-72B
Oeneis tarpeia OE-65B
Oeneis uhleri OE-52
Oeneis diluta OE-35
Oeneis mongolica CB10-5
Oeneis mongolica CB10-3
Oeneis mongolica CB10-6
Oeneis ridingsii CD-1-1
Oeneis wyomingo AB10-14
Oeneis wyomingo AB10-15
Oeneis ammon OE-12
Oeneis ammon OE-13
Oeneis bore OE-07
Oeneis bore ZF-LY-000536
Oeneis bore OE-27
Oeneis bore CB12-3
Oeneis chryxus OE-05
Oeneis chryxus OE-02
Oeneis chryxus OE-01
Oeneis chryxus OE-03
Oeneis buddha CB12-5
Oeneis buddha CB12-6
Oeneis mulla OE-54
Oeneis elwesi OE-46
Oeneis elwesi OE-71B
Oeneis jutta EW-4-1
Oeneis magna CB12-17
Oeneis jutta ZF-LY-001442
Oeneis aktashi OE-16
Oeneis aktashi OE-69B
Oeneis melissa OE-53B
Oeneis melissa OE-29
Oeneis melissa OE-04
Oeneis melissa OE-23
Oeneis glacialis OE-48
Oeneis glacialis OE-49
Oeneis glacialis OE-50
Oeneis fulla OE-55
Oeneis norna CB12-16
Oeneis norna OE-10
Oeneis norna OE-74B
Oeneis norna CB12-18
Oeneis norna OE-18
0.02

Subgenus	Species group
Subgenus Protoeneis Gorbunov, 2001	urda group Lukhtanov, 1984
	tarpeia group Lukhtanov, 1984
Subgenus Oeneis Hübner, [1819]	buddha group Lukhtanov, 1984
	bore group Lukhtanov, 1984
	hora group Lukhtanov, 1984
	polixenes group Gorbunov, 2001

Species	Distribution	Hab
		wet/dry
Oeneis nanna (Ménétriés, 1858)	B	dry
Oeneis diluta Lukhtanov, 1994	B	dry
Oeneis urda (Eversmann, 1847)	B	dry
Oeneis mongolica (Oberthür, 1876)	B	dry
Oeneis sculda (Eversmann, 1851)	B	dry
Oeneis uhleri (Reakirt, 1866)	CD	dry
Oeneis tarpeia (Pallas, 1771)	B	dry
Oeneis lederi Alphéraky, 1897	B	dry
Oeneis buddha Grum-Grshimaîlo, 1891	B	wet
Oeneis bore (Esper, 1789)	BCD	wet
Oeneis ammon Elwes, 1899	B	wet
Oeneis ammosovi Dubatolov & Korshunov, 1988	B	?
Oeneis chryxus (Doubleday, [1849])	D	dry
Oeneis alberta Elwes, 1893	D	dry
Oeneis nevadensis (C. and R. Felder, 1867)	D	dry
Oeneis macounii (W. H. Edwards, 1885)	D	dry
Oeneis hora Grum-Grschimaïlo, 1888	B	?
Oeneis mulla Staudinger, 1881	B	dry
Oeneis elwesi Staudinger, 1901	B	dry
Oeneis aktashi Lukhtanov, 1984	B	dry
Oeneis alpina Kurentsov, 1970	CD	dry
Oeneis polixenes (Fabricius, 1775)	CD	dry
Oeneis philipi Troubridge, 1988	CD	wet
Oeneis norna (Thunberg, 1791)	BC	wet
Oeneis actaeoides Lukhtanov, 1989	B	?
Oeneis glacialis (Moll, 1785)	A	dry
Oeneis jutta Hübner, [1806]	BCD	wet
Oeneis magna Graeser, 1888	BC	wet
Oeneis melissa (Fabricius, 1775)	CD	dry
Oeneis fulla (Eversmann, 1851)	B	dry

ıitat
open/woodland
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open
woodland

Species	Locality	Code	*COI*
Melanargia galathea (Linnaeus, 1758)	FRANCE: Languedoc	EW24-17	DQ338843
Hipparchia statilinus (Hufnagel, 1766)	GREECE: near Patras	EW25-24	DQ338596
Paroeneis palaearcticus (Staudinger, 1889)	CHINA:Qinghai prov.	CB11-2	KP888650
Paroeneis pumillus (C. & R. Felder, [1867])	INDIA: Ladakh	CB12-1	KP888651
Karanasa bolorica (Grum-Grshimailo, 1888)	RUSSIA: E Pamir, Karateke distr.	NW166-10	GQ357246
Karanasa pamira (Staudinger, 1887)	RUSSIA: Vanch	CP-AC23-32	DQ338869
Neominois ridingsii (Edwards, 1865)	USA: Colorado	CD-1-1	DQ338870
Neominois wyomingo (Scott, 1998)	USA: Colorado	AB10-15	KP888652
Neominois wyomingo (Scott, 1998)	USA: Colorado	AB10-14	KP888653
Oeneis aktashi Lukhtanov, 1984	RUSSIA: Tuva, Sayan Mts.	OE-16	KP888654
Oeneis aktashi Lukhtanov, 1984	RUSSIA: Tuva, near Kup-Khol lake	OE-69b	KP888655
Oeneis ammon Elwes, 1899	RUSSIA: Tuva, Tannu-Ola Mts.	OE-12	KP888656
Oeneis ammon Elwes, 1899	RUSSIA: Tuva, Mongun-Taiga Mts.	OE-13	KP888657
Oeneis bore (Esper, 1789)	CANADA: Yukon, Richardson Mts.	OE-07	KP888658
Oeneis bore (Esper, 1789)	CANADA:Yukon, Coast Mts.	OE-27	KP888659
Oeneis bore (Esper, 1789)	CANADA: Alberta, Wilcox pass	zf-ly-000536	KP888660
Oeneis bore (Esper, 1789)	CANADA:Yukon, Northern Boreal Mts.	CB12-3	KP888661
Oeneis buddha Grum-Grshimaîlo, 1891	CHINA:Sichuan	CB12-5	KP888662
Oeneis buddha Grum-Grshimaîlo, 1891	CHINA: South Quinghai, 50 km E of Domba	CB12-6	KP888663
Oeneis diluta Lukhtanov, 1994	RUSSIA:Tuva, Sayan Mts.	OE-35	KP888664
Oeneis elwesi Staudinger, 1901	RUSSIA:Tuva, Tsagan-Shibetu Mts.	OE-46	KP888665
Oeneis elwesi Staudinger, 1901	RUSSIA: Tuva, W Tannu-Ola Mts.	OE-71b	KP888666
Oeneis fulla (Eversmann, 1851)	KAZACHSTAN:Saur Mts.	OE-55	KP888667
Oeneis glacialis (Moll, 1785)	ITALY:Rochemolles	OE-48	KP888668
Oeneis glacialis (Moll, 1785)	AUSTRIA: Hochsölden	OE-49	KP888669
Oeneis glacialis (Moll, 1785)	AUSTRIA: Hochsölden	OE-50	KP888670
Oeneis chryxus (Doubleday, [1849])	CANADA:British Columbia	OE-02	KP888671
Oeneis chryxus (Doubleday, [1849])	CANADA: Alberta, Rocky Mts.	OE-01	KP888672
Oeneis chryxus (Doubleday, [1849])	CANADA: Alberta, Rocky Mts.	OE-03	KP888673
Oeneis chryxus (Doubleday, [1849])	CANADA:Yukon, 564-568 km of R.Campbell H	OE-05	KP888674
Oeneis jutta Hübner, [1806]	SWEDEN	EW-4-1	DQ018958
Oeneis jutta Hübner, [1806]	RUSSIA: C. Sakhalin	ZF-LY-001442	KP888675
Oeneis lederi Alphéraky, 1897	RUSSIA:Tuva, Tore-Khol lake	OE-72b	KP888676
Oeneis magna Graeser, 1888	RUSSIA:Alataj, Dzazator	CB12-17	KP888677
Oeneis melissa (Fabricius, 1775)	CANADA:Yukon, Richarson Mts.	OE-29	KP888678
Oeneis melissa (Fabricius, 1775)	CANADA:Yukon, Ogilvie Mts.	OE-04	KP888679
Oeneis melissa (Fabricius, 1775)	CANADA:Yukon, Ogilvie Mts.	OE-23	KP888680
Oeneis melissa (Fabricius, 1775)	CANADA:Yukon, Coast Mts.	OE-53b	KP888681
Oeneis mongolica (Oberthür, 1876)	S KOREA, Gangwon-do Chang-won-ri	CB10-3	KP888682
Oeneis mongolica (Oberthür, 1876)	S KOREA, Gyeonggi-do Icheon	CB10-5	KP888683
Oeneis mongolica (Oberthür, 1876)	S KOREA, Gyeonggi-do Icheon	CB10-6	KP888684
Oeneis mulla Staudinger, 1881	KAZACHSTAN:Monrak Mts.	OE-54	KP888685
Oeneis norna (Thunberg, 1791)	CHINA:South Quinghai	CB12-16	KP888686
Oeneis norna (Thunberg, 1791)	RUSSIA: Polarniy Ural	OE-10	KP888687
Oeneis norna (Thunberg, 1791)	RUSSIA:Altaj, Dzazator	CB12-18	KP888688
Oeneis norna (Thunberg, 1791)	RUSSIA: Polarniy Ural	OE-74b	KP888689
Oeneis norna (Thunberg, 1791)	RUSSIA: Tuva, Tsagan-Shibetu Mts.	OE-18	KP888690
Oeneis sculda (Eversmann, 1851)	RUSSIA:Altaj, Dzazator	CB12-19	KP888691
Oeneis sculda (Eversmann, 1851)	RUSSIA: Tuva, Tannu-Ola Mts.	OE-33	KP888692
Oeneis tarpeia (Pallas, 1771)	RUSSIA:Altaj, Dzazator	AB7-6	KP888693
Oeneis tarpeia (Pallas, 1771)	RUSSIA: Tuva, W Sayan Mts.	OE-65b	KP888694
Oeneis uhleri (Reakirt, 1866)	CANADA:Yukon, Richarson Mts.	OE-52	KP888695

Gene		
GAPDH	*Rps5*	*Wingless*
EU528398	EU528444	DQ338706
GQ357503	GQ357629	DQ338733
KP888696	KP888732	KP888767
KP888697	KP888733	KP888768
GQ357504	GQ357630	GQ357380
GQ357505	GQ357631	DQ338734
-	-	DQ338735
-	-	KP888769
-	-	KP888770
KP888698	KP888734	KP888771
KP888699	-	KP888772
KP888700	KP888735	KP888773
KP888701	KP888736	KP888774
KP888702	-	KP888775
KP888703	KP888737	KP888776
KP888704	KP888738	KP888777
KP888705	KP888739	KP888778
KP888706	KP888740	KP888779
KP888707	KP888741	KP888780
-	KP888742	KP888781
KP888708	KP888743	KP888782
KP888709	KP888744	KP888783
KP888710	KP888745	KP888784
KP888711	KP888746	KP888785
KP888712	-	KP888786
-	KP888747	KP888787
KP888713	KP888748	KP888788
KP888714	KP888749	KP888789
KP888715	KP888750	KP888790
KP888716	KP888751	KP888791
GQ357506	GQ357632	DQ018896
-	-	KP888792
KP888717	-	KP888793
KP888718	KP888752	KP888794
KP888719	-	KP888795
-	-	KP888796
-	-	KP888797
KP888720	-	-
KP888721	KP888753	KP888798
KP888722	KP888754	KP888799
KP888723	KP888755	KP888800
KP888724	KP888756	KP888801
KP888725	KP888757	KP888802
KP888726	KP888758	KP888803
KP888727	KP888759	KP888804
KP888728	KP888760	KP888805
KP888729	KP888761	KP888806
-	KP888762	KP888807
-	KP888763	KP888808
KP888730	KP888764	KP888809
KP888731	KP888765	KP888810
-	KP888766	KP888811

Habitat and climatic requirements	K-value	PIC variance.P
Wet or dry habitat association	0.44	0.127
Open or woodland habitat association	0.52	0.054
Average bio1, Annual mean temperature	0.33	0.381
Average bio4, Temperature seasonality	0.40	0.123
Average bio5, Maximum temperature	**0.72**	**0.004**
Average bio6, Minimum temperature	0.29	0.542
Average bio12, Annual precipitation	0.39	0.307
Average bio15, Precipitation seasonality	0.30	0.446

Habitat and climatic requirements	K-value	PIC variance.P
Average bio1, Annual mean temperature	0.32	0.323
Average bio4, Temperature seasonality	0.49	0.075
Average bio5, Maximum temperature	**0.81**	**0.002**
Average bio6, Minimum temperature	0.35	0.346
Average bio12, Annual precipitation	0.44	0.345
Average bio15, Precipitation seasonality	0.27	0.546

Bayesian Analysis result file
[TAXON]
1 Oeneis_buddha_CB12-6 B
2 Oeneis_glacialis_OE-48 A
3 Oeneis_norna_OE-74B BC
4 Oeneis_fulla_OE-55 B
5 Oeneis_jutta_ZF-LY-001442 BCD
6 Oeneis_magna_CB12-17 BC
7 Oeneis_aktashi_OE-16 B
8 Oeneis_melissa_OE-53B CD
9 Oeneis_elwesi_OE-71B B
10 Oeneis_mulla_OE-54 B
11 Oeneis_chryxus_OE-05 CD
12 Oeneis_bore_OE-07 BCD
13 Oeneis_ammon_OE-12 B
14 Neominois_ridingsii_CD-1-1_ D
15 Neominois_wyomingo_AB10-14 D
16 Oeneis_tarpeja_OE-65B B
17 Oeneis_lederi_OE-72B B
18 Oeneis_sculda_OE-33 B
19 Oeneis_diluta_OE-35 B
20 Oeneis_mongolica_CB10-6 B
21 Oeneis_uhleri_OE-52 CD
[TREE]
Tree=((((1:5.119732448,(((2:2.321296025,(3:1.661675551,4:1.661675551):0.6596204742):1.047410229,((5:0.8522545678,6:0.8522545678):0.7767118984,(7:1.037497626,8:1.037497626):0.5914688405):1.739739788):1.011727463,(9:2.366541145,10:2.366541145):2.013892572):0.739298731):1.747906387,((11:2.20222763,12:2.20222763):0.9930605284,13:3.195288158):3.672350676):1.835207525,(14:1.80357182,15:1.80357182):6.89927454):1.304116776,((16:0.4825293056,17:0.4825293056):4.524234624,(18:4.053100339,((19:1.532799802,20:1.532799802):1.847354737,21:3.380154539):0.6729458005):0.9536635902):5.000199207);
[RESULT]
result of combined:
node 22 (anc. of terminals 3-4): B 87.49 BC 10.45 AB 1.68 ABC 0.20 C 0.08 BD 0.07 A 0.01 BCD 0.01 AC 0.00 ABD 0.00 D 0.00 ABCD 0.00 CD 0.00 AD 0.00 ACD 0.00
node 23 (anc. of terminals 2-4): B 83.61 BC 9.04 AB 5.03 C 0.97 ABC 0.54 A 0.54 BD 0.15 AC 0.06 BCD 0.02 D 0.02 ABD 0.01 CD 0.00 ABCD 0.00 AD 0.00 ACD 0.00
node 24 (anc. of terminals 5-6): BC 84.01 BCD 9.30 B 5.69 BD 0.63 C 0.21 ABC 0.13 CD 0.02 ABCD 0.01 AB 0.01 D 0.00 ABD 0.00 AC 0.00 ACD 0.00 A 0.00 AD 0.00
node 25 (anc. of terminals 7-8): B 55.97 BC 29.92 BD 5.01 C 4.86 BCD 2.68 D 0.81 CD 0.44 AB 0.16 ABC 0.09 A 0.03 ABD 0.01 AC 0.01 ABCD 0.01 AD 0.00 ACD 0.00
node 26 (anc. of terminals 5-8): B 54.12 BC 37.28 BD 4.48 BCD 3.09 C 0.55 AB 0.20 ABC 0.14 D 0.07 CD 0.05 ABD 0.02 ABCD 0.01 A 0.00 AC 0.00 AD 0.00 ACD 0.00
node 27 (anc. of terminals 2-8): B 86.24 BC 11.81 AB 0.83 BD 0.68 C 0.21 ABC 0.11 BCD 0.09 A 0.01 D 0.01 ABD 0.01 AC 0.00 CD 0.00 ABCD 0.00 AD 0.00 ACD 0.00
node 28 (anc. of terminals 9-10): B 99.81 AB 0.09 BC 0.06 BD 0.04 A 0.00 C 0.00 D 0.00 ABC 0.00 ABD 0.00 BCD 0.00 AC 0.00 AD 0.00 CD 0.00 ABCD 0.00 ACD 0.00
node 29 (anc. of terminals 2-10): B 98.26 BC 1.30 AB 0.23 BD 0.19 C 0.01 ABC 0.00 BCD 0.00 A 0.00 D 0.00 ABD 0.00 AC 0.00 CD 0.00 ABCD 0.00 AD 0.00 ACD 0.00
node 30 (anc. of terminals 1-10): B 99.24 BC 0.39 BD 0.25 AB 0.10 C 0.01 D 0.00 A 0.00 BCD 0.00 ABC 0.00 ABD 0.00 CD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 31 (anc. of terminals 11-12): BCD 59.09 BC 18.09 CD 9.57 BD 6.95 C 2.93 B 2.13 D 1.12 ABCD 0.07 ABC 0.02 ACD 0.01 ABD 0.01 AC 0.00 AB 0.00 AD 0.00 A 0.00
node 32 (anc. of terminals 11-13): B 83.89 BD 7.41 BC 7.08 BCD 0.63 D 0.40 C 0.38 AB 0.15 CD 0.03 ABD 0.01

ABC 0.01 A 0.01 ABCD 0.00 AD 0.00 AC 0.00 ACD 0.00
node 33 (anc. of terminals 1-13): B 94.09 BD 3.87 BC 1.20 D 0.49 C 0.15 AB 0.12 BCD 0.05 A 0.02 CD 0.01 ABD 0.01 ABC 0.00 AD 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 34 (anc. of terminals 14-15): D 97.62 BD 1.81 B 0.32 CD 0.15 AD 0.05 C 0.03 A 0.01 BCD 0.00 ABD 0.00 BC 0.00 AB 0.00 ACD 0.00 AC 0.00 ABCD 0.00 ABC 0.00
node 35 (anc. of terminals 1-15): B 77.97 BD 10.70 D 10.09 BC 0.40 C 0.38 AB 0.16 A 0.15 BCD 0.05 CD 0.05 ABD 0.02 AD 0.02 ABC 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 36 (anc. of terminals 16-17): B 99.85 AB 0.06 BD 0.05 BC 0.04 A 0.00 D 0.00 C 0.00 ABD 0.00 ABC 0.00 BCD 0.00 AD 0.00 AC 0.00 CD 0.00 ABCD 0.00 ACD 0.00
node 37 (anc. of terminals 19-20): B 99.68 BC 0.13 BD 0.09 AB 0.09 C 0.00 D 0.00 A 0.00 BCD 0.00 ABC 0.00 ABD 0.00 CD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 38 (anc. of terminals 19-21): B 93.43 BC 3.24 BD 2.64 C 0.24 D 0.19 AB 0.14 BCD 0.09 A 0.01 CD 0.01 ABC 0.00 ABD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 39 (anc. of terminals 18-21): B 99.22 BC 0.35 BD 0.33 AB 0.08 C 0.01 D 0.01 A 0.00 BCD 0.00 ABC 0.00 ABD 0.00 CD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 40 (anc. of terminals 16-21): B 99.64 BD 0.15 BC 0.10 AB 0.08 D 0.01 C 0.01 A 0.01 BCD 0.00 ABD 0.00 ABC 0.00 CD 0.00 AD 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 41 (anc. of terminals 1-21): B 96.66 D 1.45 BD 1.42 C 0.13 BC 0.13 A 0.11 AB 0.10 CD 0.00 BCD 0.00 AD 0.00 ABD 0.00 AC 0.00 ABC 0.00 ACD 0.00 ABCD 0.00
result of run 1:
node 22 (anc. of terminals 3-4): B 87.31 BC 10.34 AB 1.92 ABC 0.23 BD 0.09 C 0.08 A 0.01 BCD 0.01 ABD 0.00 AC 0.00 D 0.00 ABCD 0.00 CD 0.00 AD 0.00 ACD 0.00
node 23 (anc. of terminals 2-4): B 83.29 BC 9.58 AB 4.90 C 0.93 ABC 0.56 A 0.47 BD 0.16 AC 0.05 BCD 0.02 D 0.02 ABD 0.01 CD 0.00 ABCD 0.00 AD 0.00 ACD 0.00
node 24 (anc. of terminals 5-6): BC 85.16 BCD 8.13 B 5.76 BD 0.55 C 0.23 ABC 0.13 CD 0.02 ABCD 0.01 AB 0.01 D 0.00 ABD 0.00 AC 0.00 ACD 0.00 A 0.00 AD 0.00
node 25 (anc. of terminals 7-8): B 55.42 BC 30.14 C 5.15 BD 5.00 BCD 2.72 D 0.85 CD 0.46 AB 0.13 ABC 0.07 A 0.02 AC 0.01 ABD 0.01 ABCD 0.01 AD 0.00 ACD 0.00
node 26 (anc. of terminals 5-8): B 54.46 BC 38.05 BD 3.87 BCD 2.70 C 0.50 AB 0.18 ABC 0.13 D 0.05 CD 0.04 ABD 0.01 ABCD 0.01 A 0.00 AC 0.00 AD 0.00 ACD 0.00
node 27 (anc. of terminals 2-8): B 85.98 BC 12.23 AB 0.73 BD 0.63 C 0.20 ABC 0.10 BCD 0.09 A 0.01 D 0.01 ABD 0.01 AC 0.00 CD 0.00 ABCD 0.00 AD 0.00 ACD 0.00
node 28 (anc. of terminals 9-10): B 99.79 AB 0.09 BC 0.07 BD 0.05 A 0.00 C 0.00 D 0.00 ABC 0.00 ABD 0.00 BCD 0.00 AC 0.00 AD 0.00 CD 0.00 ABCD 0.00 ACD 0.00
node 29 (anc. of terminals 2-10): B 98.25 BC 1.35 BD 0.20 AB 0.19 C 0.01 BCD 0.00 ABC 0.00 D 0.00 A 0.00 ABD 0.00 CD 0.00 AC 0.00 ABCD 0.00 AD 0.00 ACD 0.00
node 30 (anc. of terminals 1-10): B 99.25 BC 0.43 BD 0.22 AB 0.09 C 0.01 D 0.00 A 0.00 BCD 0.00 ABC 0.00 ABD 0.00 CD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 31 (anc. of terminals 11-12): BCD 59.84 BC 18.72 CD 8.42 BD 7.04 C 2.63 B 2.20 D 0.99 ABCD 0.09 ABC 0.03 ACD 0.01 ABD 0.01 AC 0.00 AB 0.00 AD 0.00 A 0.00
node 32 (anc. of terminals 11-13): B 84.35 BD 7.12 BC 6.90 BCD 0.58 D 0.42 C 0.40 AB 0.15 CD 0.03 ABD 0.01 ABC 0.01 A 0.01 ABCD 0.00 AD 0.00 AC 0.00 ACD 0.00
node 33 (anc. of terminals 1-13): B 93.84 BD 3.88 BC 1.34 D 0.54 C 0.19 AB 0.13 BCD 0.06 A 0.02 CD 0.01 ABD 0.01 ABC 0.00 AD 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 34 (anc. of terminals 14-15): D 97.72 BD 1.69 B 0.31 CD 0.17 AD 0.05 C 0.03 A 0.01 BCD 0.00 ABD 0.00 BC 0.00 AB 0.00 ACD 0.00 AC 0.00 ABCD 0.00 ABC 0.00
node 35 (anc. of terminals 1-15): B 76.32 BD 11.30 D 11.06 BC 0.43 C 0.42 AB 0.16 A 0.15 BCD 0.06 CD 0.06 ABD 0.02 AD 0.02 ABC 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 36 (anc. of terminals 16-17): B 99.82 AB 0.07 BD 0.05 BC 0.05 A 0.00 D 0.00 C 0.00 ABD 0.00 ABC 0.00 BCD 0.00 AD 0.00 AC 0.00 CD 0.00 ABCD 0.00 ACD 0.00
node 37 (anc. of terminals 19-20): B 99.76 BC 0.09 AB 0.08 BD 0.07 C 0.00 A 0.00 D 0.00 ABC 0.00 BCD 0.00 ABD 0.00 AC 0.00 CD 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 38 (anc. of terminals 19-21): B 93.65 BC 3.08 BD 2.60 C 0.22 D 0.19 AB 0.15 BCD 0.09 A 0.01 CD 0.01 ABC 0.00 ABD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00

node 39 (anc. of terminals 18-21): B 99.20 BC 0.35 BD 0.35 AB 0.08 C 0.01 D 0.01 A 0.00 BCD 0.00 ABC 0.00 ABD 0.00 CD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 40 (anc. of terminals 16-21): B 99.63 BD 0.15 BC 0.10 AB 0.09 D 0.01 C 0.01 A 0.01 BCD 0.00 ABD 0.00 ABC 0.00 CD 0.00 AD 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 41 (anc. of terminals 1-21): B 96.38 D 1.59 BD 1.59 C 0.12 BC 0.12 A 0.10 AB 0.10 CD 0.00 BCD 0.00 AD 0.00 ABD 0.00 AC 0.00 ABC 0.00 ACD 0.00 ABCD 0.00
result of run 2:
node 22 (anc. of terminals 3-4): B 87.67 BC 10.55 AB 1.43 ABC 0.17 C 0.08 BD 0.06 A 0.01 BCD 0.01 AC 0.00 ABD 0.00 D 0.00 ABCD 0.00 CD 0.00 AD 0.00 ACD 0.00
node 23 (anc. of terminals 2-4): B 83.94 BC 8.51 AB 5.16 C 1.01 A 0.61 ABC 0.52 BD 0.14 AC 0.06 D 0.02 BCD 0.01 ABD 0.01 CD 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 24 (anc. of terminals 5-6): BC 82.85 BCD 10.47 B 5.61 BD 0.71 C 0.18 ABC 0.13 CD 0.02 ABCD 0.02 AB 0.01 D 0.00 ABD 0.00 AC 0.00 ACD 0.00 A 0.00 AD 0.00
node 25 (anc. of terminals 7-8): B 56.52 BC 29.70 BD 5.03 C 4.57 BCD 2.64 D 0.77 CD 0.41 AB 0.19 ABC 0.10 A 0.03 ABD 0.02 AC 0.01 ABCD 0.01 AD 0.00 ACD 0.00
node 26 (anc. of terminals 5-8): B 53.77 BC 36.53 BD 5.10 BCD 3.47 C 0.60 AB 0.21 ABC 0.15 D 0.08 CD 0.06 ABD 0.02 ABCD 0.01 A 0.00 AC 0.00 AD 0.00 ACD 0.00
node 27 (anc. of terminals 2-8): B 86.51 BC 11.38 AB 0.92 BD 0.72 C 0.21 ABC 0.12 BCD 0.10 A 0.02 D 0.01 ABD 0.01 AC 0.00 CD 0.00 ABCD 0.00 AD 0.00 ACD 0.00
node 28 (anc. of terminals 9-10): B 99.82 AB 0.08 BC 0.06 BD 0.04 A 0.00 C 0.00 D 0.00 ABC 0.00 ABD 0.00 BCD 0.00 AC 0.00 AD 0.00 CD 0.00 ABCD 0.00 ACD 0.00
node 29 (anc. of terminals 2-10): B 98.27 BC 1.26 AB 0.27 BD 0.19 C 0.01 ABC 0.00 BCD 0.00 A 0.00 D 0.00 ABD 0.00 AC 0.00 CD 0.00 ABCD 0.00 AD 0.00 ACD 0.00
node 30 (anc. of terminals 1-10): B 99.24 BC 0.36 BD 0.29 AB 0.10 C 0.01 D 0.00 A 0.00 BCD 0.00 ABC 0.00 ABD 0.00 CD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 31 (anc. of terminals 11-12): BCD 58.33 BC 17.47 CD 10.73 BD 6.85 C 3.21 B 2.05 D 1.26 ABCD 0.06 ABC 0.02 ACD 0.01 ABD 0.01 AC 0.00 AB 0.00 AD 0.00 A 0.00
node 32 (anc. of terminals 11-13): B 83.42 BD 7.69 BC 7.27 BCD 0.67 D 0.38 C 0.36 AB 0.14 CD 0.03 ABD 0.01 ABC 0.01 A 0.01 ABCD 0.00 AD 0.00 AC 0.00 ACD 0.00
node 33 (anc. of terminals 1-13): B 94.34 BD 3.85 BC 1.07 D 0.44 C 0.12 AB 0.11 BCD 0.04 A 0.01 CD 0.00 ABD 0.00 ABC 0.00 AD 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 34 (anc. of terminals 14-15): D 97.52 BD 1.93 B 0.33 CD 0.12 AD 0.06 C 0.02 A 0.01 BCD 0.00 ABD 0.00 BC 0.00 AB 0.00 ACD 0.00 AC 0.00 ABCD 0.00 ABC 0.00
node 35 (anc. of terminals 1-15): B 79.61 BD 10.08 D 9.16 BC 0.37 C 0.34 AB 0.16 A 0.15 BCD 0.05 CD 0.04 ABD 0.02 AD 0.02 ABC 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 36 (anc. of terminals 16-17): B 99.88 AB 0.04 BD 0.04 BC 0.04 A 0.00 D 0.00 C 0.00 ABD 0.00 ABC 0.00 BCD 0.00 AD 0.00 AC 0.00 CD 0.00 ABCD 0.00 ACD 0.00
node 37 (anc. of terminals 19-20): B 99.61 BC 0.18 BD 0.11 AB 0.10 C 0.00 D 0.00 A 0.00 BCD 0.00 ABC 0.00 ABD 0.00 CD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 38 (anc. of terminals 19-21): B 93.21 BC 3.40 BD 2.67 C 0.26 D 0.20 AB 0.12 BCD 0.10 A 0.01 CD 0.01 ABC 0.00 ABD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 39 (anc. of terminals 18-21): B 99.24 BC 0.34 BD 0.32 AB 0.08 C 0.01 D 0.01 A 0.00 BCD 0.00 ABC 0.00 ABD 0.00 CD 0.00 AC 0.00 AD 0.00 ABCD 0.00 ACD 0.00
node 40 (anc. of terminals 16-21): B 99.65 BD 0.15 BC 0.10 AB 0.08 D 0.01 C 0.01 A 0.01 BCD 0.00 ABD 0.00 ABC 0.00 CD 0.00 AD 0.00 AC 0.00 ABCD 0.00 ACD 0.00
node 41 (anc. of terminals 1-21): B 96.95 D 1.29 BD 1.24 C 0.15 BC 0.14 A 0.11 AB 0.11 CD 0.00 BCD 0.00 AD 0.00 ABD 0.00 AC 0.00 ABC 0.00 ACD 0.00 ABCD 0.00
[PROBABILITY]

	A(0)	A(1)	B(0)	B(1)	C(0)	C(1)	D(0)	D(1)
node 22:	0.981165	0.018836	0.007658	0.992343	0.893344	0.106656	0.999164	0.000836
node 23:	0.943243	0.056758	0.097179	0.902821	0.902386	0.097614	0.998228	0.001772
node 24:	0.998498	0.001503	0.002444	0.997556	0.063393	0.936608	0.900356	

0.099644							
node 25:	0.997155	0.002845	0.139642	0.860358	0.651647	0.348353	0.917774
0.082227							
node 26:	0.996341	0.003659	0.014542	0.985459	0.592092	0.407908	0.923531
0.076470							
node 27:	0.990518	0.009483	0.017214	0.982787	0.879599	0.120402	0.992223
0.007778							
node 28:	0.999141	0.000860	0.001897	0.998102	0.999368	0.000633	0.999568
0.000432							
node 29:	0.997692	0.002308	0.005910	0.994090	0.986927	0.013073	0.998028
0.001972							
node 30:	0.999039	0.000962	0.015001	0.984999	0.996042	0.003959	0.997461
0.002540							
node 31:	0.998753	0.001248	0.139348	0.860652	0.105197	0.894803	0.234391
0.765609							
node 32:	0.998270	0.001731	0.051278	0.948723	0.922131	0.077870	0.918861
0.081140							
node 33:	0.998698	0.001302	0.112119	0.887882	0.987371	0.012629	0.960533
0.039468							
node 34:	0.999452	0.000549	0.981765	0.018235	0.998481	0.001519	0.150259
0.849742							
node 35:	0.997958	0.002043	0.485415	0.514586	0.994900	0.005100	0.879349
0.120652							
node 36:	0.999414	0.000586	0.007962	0.992038	0.999559	0.000442	0.999550
0.000451							
node 37:	0.999125	0.000876	0.011467	0.988533	0.998666	0.001335	0.999082
0.000919							
node 38:	0.998527	0.001474	0.068803	0.931198	0.966448	0.033552	0.972550
0.027451							
node 39:	0.999196	0.000805	0.025146	0.974855	0.996526	0.003475	0.996637
0.003363							
node 40:	0.999171	0.000829	0.074417	0.925583	0.998991	0.001009	0.998506
0.001494							
node 41:	0.998934	0.001066	0.505028	0.494972	0.998661	0.001339	0.985555
0.014445							

Bayesian Analysis result file
[TAXON]
1 Oeneis_buddha_CB12-6 B
2 Oeneis_glacialis_OE-48 A
3 Oeneis_norna_OE-74B B
4 Oeneis_fulla_OE-55 A
5 Oeneis_jutta_ZF-LY-001442 B
6 Oeneis_magna_CB12-17 B
7 Oeneis_aktashi_OE-16 A
8 Oeneis_melissa_OE-53B A
9 Oeneis_elwesi_OE-71B A
10 Oeneis_mulla_OE-54 A
11 Oeneis_chryxus_OE-05 A
12 Oeneis_bore_OE-07 B
13 Oeneis_ammon_OE-12 B
14 Neominois_ridingsii_CD-1-1_ A
15 Neominois_wyomingo_AB10-14 A
16 Oeneis_tarpeja_OE-65B A
17 Oeneis_lederi_OE-72B A
18 Oeneis_sculda_OE-33 A
19 Oeneis_diluta_OE-35 A
20 Oeneis_mongolica_CB10-6 A
21 Oeneis_uhleri_OE-52 A
[TREE]
Tree=((((1:5.119732448,(((2:2.321296025,(3:1.661675551,4:1.661675551):0.6596204742):1.047410229,((5:0.8522545678,6:0.8522545678):0.7767118984,(7:1.037497626,8:1.037497626):0.5914688405):1.739739788):1.011727463,(9:2.366541145,10:2.366541145):2.013892572):0.739298731):1.747906387,((11:2.20222763,12:2.20222763):0.9930605284,13:3.195288158):3.672350676):1.835207525,(14:1.80357182,15:1.80357182):6.89927454):1.304116776,((16:0.4825293056,17:0.4825293056):4.524234624,(18:4.053100339,((19:1.532799802,20:1.532799802):1.847354737,21:3.380154539):0.6729458005):0.9536635902):5.000199207);
[RESULT]
result of combined:
node 22 (anc. of terminals 3-4): A 91.78 AB 7.55 B 0.66
node 23 (anc. of terminals 2-4): A 97.62 AB 2.33 B 0.04
node 24 (anc. of terminals 5-6): B 93.23 AB 6.49 A 0.27
node 25 (anc. of terminals 7-8): A 99.53 AB 0.47 B 0.00
node 26 (anc. of terminals 5-8): A 87.06 AB 11.53 B 1.41
node 27 (anc. of terminals 2-8): A 94.42 AB 5.35 B 0.23
node 28 (anc. of terminals 9-10): A 99.68 AB 0.32 B 0.00
node 29 (anc. of terminals 2-10): A 91.10 AB 8.21 B 0.69
node 30 (anc. of terminals 1-10): A 39.75 AB 32.75 B 27.50
node 31 (anc. of terminals 11-12): B 58.76 AB 28.98 A 12.25
node 32 (anc. of terminals 11-13): B 67.15 AB 25.45 A 7.40
node 33 (anc. of terminals 1-13): A 44.27 AB 31.58 B 24.15
node 34 (anc. of terminals 14-15): A 99.86 AB 0.14 B 0.00
node 35 (anc. of terminals 1-15): A 94.05 AB 4.87 B 1.08
node 36 (anc. of terminals 16-17): A 99.91 AB 0.09 B 0.00
node 37 (anc. of terminals 19-20): A 99.91 AB 0.09 B 0.00
node 38 (anc. of terminals 19-21): A 99.91 AB 0.09 B 0.00
node 39 (anc. of terminals 18-21): A 99.86 AB 0.14 B 0.00
node 40 (anc. of terminals 16-21): A 99.85 AB 0.15 B 0.00
node 41 (anc. of terminals 1-21): A 99.13 AB 0.63 B 0.24
result of run 1:

node 22 (anc. of terminals 3-4): A 91.31 AB 8.00 B 0.69
node 23 (anc. of terminals 2-4): A 97.28 AB 2.66 B 0.06
node 24 (anc. of terminals 5-6): B 92.01 AB 7.59 A 0.41
node 25 (anc. of terminals 7-8): A 99.54 AB 0.46 B 0.00
node 26 (anc. of terminals 5-8): A 88.31 AB 10.56 B 1.13
node 27 (anc. of terminals 2-8): A 94.53 AB 5.27 B 0.21
node 28 (anc. of terminals 9-10): A 99.65 AB 0.34 B 0.00
node 29 (anc. of terminals 2-10): A 91.66 AB 7.74 B 0.60
node 30 (anc. of terminals 1-10): A 40.57 AB 32.82 B 26.62
node 31 (anc. of terminals 11-12): B 58.41 AB 28.97 A 12.61
node 32 (anc. of terminals 11-13): B 66.12 AB 25.82 A 8.06
node 33 (anc. of terminals 1-13): A 44.21 AB 31.68 B 24.11
node 34 (anc. of terminals 14-15): A 99.86 AB 0.14 B 0.00
node 35 (anc. of terminals 1-15): A 94.19 AB 4.78 B 1.04
node 36 (anc. of terminals 16-17): A 99.93 AB 0.07 B 0.00
node 37 (anc. of terminals 19-20): A 99.92 AB 0.08 B 0.00
node 38 (anc. of terminals 19-21): A 99.91 AB 0.09 B 0.00
node 39 (anc. of terminals 18-21): A 99.89 AB 0.11 B 0.00
node 40 (anc. of terminals 16-21): A 99.86 AB 0.14 B 0.00
node 41 (anc. of terminals 1-21): A 99.16 AB 0.61 B 0.23
result of run 2:
node 22 (anc. of terminals 3-4): A 92.26 AB 7.11 B 0.64
node 23 (anc. of terminals 2-4): A 97.96 AB 2.00 B 0.03
node 24 (anc. of terminals 5-6): B 94.43 AB 5.40 A 0.17
node 25 (anc. of terminals 7-8): A 99.51 AB 0.49 B 0.00
node 26 (anc. of terminals 5-8): A 85.80 AB 12.49 B 1.71
node 27 (anc. of terminals 2-8): A 94.31 AB 5.43 B 0.26
node 28 (anc. of terminals 9-10): A 99.71 AB 0.29 B 0.00
node 29 (anc. of terminals 2-10): A 90.54 AB 8.67 B 0.79
node 30 (anc. of terminals 1-10): A 38.93 AB 32.67 B 28.40
node 31 (anc. of terminals 11-12): B 59.11 AB 28.99 A 11.90
node 32 (anc. of terminals 11-13): B 68.16 AB 25.07 A 6.76
node 33 (anc. of terminals 1-13): A 44.32 AB 31.48 B 24.19
node 34 (anc. of terminals 14-15): A 99.85 AB 0.15 B 0.00
node 35 (anc. of terminals 1-15): A 93.91 AB 4.96 B 1.12
node 36 (anc. of terminals 16-17): A 99.90 AB 0.10 B 0.00
node 37 (anc. of terminals 19-20): A 99.89 AB 0.11 B 0.00
node 38 (anc. of terminals 19-21): A 99.92 AB 0.08 B 0.00
node 39 (anc. of terminals 18-21): A 99.83 AB 0.17 B 0.00
node 40 (anc. of terminals 16-21): A 99.83 AB 0.17 B 0.00
node 41 (anc. of terminals 1-21): A 99.11 AB 0.64 B 0.25
[PROBABILITY]

	A(0)	A(1)	B(0)	B(1)
node 22:	0.080832	0.919169	0.923964	0.076037
node 23:	0.018344	0.981656	0.976665	0.023335
node 24:	0.934886	0.065115	0.040605	0.959395
node 25:	0.003175	0.996825	0.995274	0.004727
node 26:	0.108666	0.891335	0.883035	0.116966
node 27:	0.042020	0.957981	0.946395	0.053605
node 28:	0.003716	0.996285	0.996826	0.003174
node 29:	0.077625	0.922375	0.917366	0.082634
node 30:	0.456459	0.543542	0.548281	0.451719
node 31:	0.669702	0.330299	0.297158	0.702842
node 32:	0.725132	0.274868	0.225198	0.774802

node 33:	0.433361	0.566639	0.583625	0.416376
node 34:	0.005380	0.994621	0.998572	0.001429
node 35:	0.181413	0.818587	0.950770	0.049231
node 36:	0.000819	0.999182	0.999134	0.000866
node 37:	0.000875	0.999125	0.999051	0.000949
node 38:	0.000890	0.999111	0.999142	0.000859
node 39:	0.001278	0.998722	0.998625	0.001376
node 40:	0.009954	0.990046	0.998481	0.001519
node 41:	0.275838	0.724162	0.993713	0.006288

Bayesian Analysis result file
[TAXON]
1 Oeneis_buddha_CB12-6 A
2 Oeneis_glacialis_OE-48 A
3 Oeneis_norna_OE-74B AB
4 Oeneis_fulla_OE-55 B
5 Oeneis_jutta_ZF-LY-001442 B
6 Oeneis_magna_CB12-17 B
7 Oeneis_aktashi_OE-16 A
8 Oeneis_melissa_OE-53B A
9 Oeneis_elwesi_OE-71B A
10 Oeneis_mulla_OE-54 A
11 Oeneis_chryxus_OE-05 A
12 Oeneis_bore_OE-07 A
13 Oeneis_ammon_OE-12 A
14 Neominois_ridingsii_CD-1-1_ A
15 Neominois_wyomingo_AB10-14 A
16 Oeneis_tarpeja_OE-65B A
17 Oeneis_lederi_OE-72B A
18 Oeneis_sculda_OE-33 AB
19 Oeneis_diluta_OE-35 A
20 Oeneis_mongolica_CB10-6 A
21 Oeneis_uhleri_OE-52 AB
[TREE]
Tree=((((1:5.119732448,(((2:2.321296025,(3:1.661675551,4:1.661675551):0.6596204742):1.047410229,((5:0.8522545678,6:0.8522545678):0.7767118984,(7:1.037497626,8:1.037497626):0.5914688405):1.739739788):1.011727463,(9:2.366541145,10:2.366541145):2.013892572):0.739298731):1.747906387,((11:2.20222763,12:2.20222763):0.9930605284,13:3.195288158):3.672350676):1.835207525,(14:1.80357182,15:1.80357182):6.89927454):1.304116776,((16:0.4825293056,17:0.4825293056):4.524234624,(18:4.053100339,((19:1.532799802,20:1.532799802):1.847354737,21:3.380154539):0.6729458005):0.9536635902):5.000199207);
[RESULT]
result of combined:
node 22 (anc. of terminals 3-4): AB 82.10 A 10.29 B 7.61
node 23 (anc. of terminals 2-4): A 86.88 AB 12.99 B 0.13
node 24 (anc. of terminals 5-6): B 91.72 AB 7.77 A 0.51
node 25 (anc. of terminals 7-8): A 99.77 AB 0.23 B 0.00
node 26 (anc. of terminals 5-8): A 89.74 AB 9.61 B 0.65
node 27 (anc. of terminals 2-8): A 94.76 AB 5.18 B 0.05
node 28 (anc. of terminals 9-10): A 99.91 AB 0.09 B 0.00
node 29 (anc. of terminals 2-10): A 99.41 AB 0.59 B 0.00
node 30 (anc. of terminals 1-10): A 99.87 AB 0.13 B 0.00
node 31 (anc. of terminals 11-12): A 99.94 AB 0.06 B 0.00
node 32 (anc. of terminals 11-13): A 99.90 AB 0.10 B 0.00
node 33 (anc. of terminals 1-13): A 99.89 AB 0.11 B 0.00
node 34 (anc. of terminals 14-15): A 99.91 AB 0.09 B 0.00
node 35 (anc. of terminals 1-15): A 99.79 AB 0.20 B 0.00
node 36 (anc. of terminals 16-17): A 99.78 AB 0.22 B 0.00
node 37 (anc. of terminals 19-20): A 97.27 AB 2.73 B 0.00
node 38 (anc. of terminals 19-21): AB 53.26 A 46.66 B 0.08
node 39 (anc. of terminals 18-21): AB 57.34 A 42.60 B 0.06
node 40 (anc. of terminals 16-21): A 92.30 AB 7.67 B 0.03
node 41 (anc. of terminals 1-21): A 99.34 AB 0.59 B 0.07
result of run 1:

node 22 (anc. of terminals 3-4): AB 81.80 A 10.83 B 7.37
node 23 (anc. of terminals 2-4): A 88.00 AB 11.90 B 0.10
node 24 (anc. of terminals 5-6): B 90.35 AB 8.92 A 0.73
node 25 (anc. of terminals 7-8): A 99.82 AB 0.18 B 0.00
node 26 (anc. of terminals 5-8): A 91.36 AB 8.15 B 0.49
node 27 (anc. of terminals 2-8): A 95.48 AB 4.48 B 0.04
node 28 (anc. of terminals 9-10): A 99.92 AB 0.08 B 0.00
node 29 (anc. of terminals 2-10): A 99.46 AB 0.54 B 0.00
node 30 (anc. of terminals 1-10): A 99.85 AB 0.15 B 0.00
node 31 (anc. of terminals 11-12): A 99.94 AB 0.06 B 0.00
node 32 (anc. of terminals 11-13): A 99.92 AB 0.08 B 0.00
node 33 (anc. of terminals 1-13): A 99.88 AB 0.12 B 0.00
node 34 (anc. of terminals 14-15): A 99.91 AB 0.09 B 0.00
node 35 (anc. of terminals 1-15): A 99.78 AB 0.22 B 0.00
node 36 (anc. of terminals 16-17): A 99.74 AB 0.26 B 0.00
node 37 (anc. of terminals 19-20): A 96.92 AB 3.07 B 0.01
node 38 (anc. of terminals 19-21): AB 53.57 A 46.34 B 0.09
node 39 (anc. of terminals 18-21): AB 58.41 A 41.53 B 0.06
node 40 (anc. of terminals 16-21): A 92.33 AB 7.63 B 0.03
node 41 (anc. of terminals 1-21): A 99.36 AB 0.58 B 0.06
result of run 2:
node 22 (anc. of terminals 3-4): AB 82.40 A 9.75 B 7.85
node 23 (anc. of terminals 2-4): A 85.76 AB 14.08 B 0.16
node 24 (anc. of terminals 5-6): B 93.05 AB 6.62 A 0.33
node 25 (anc. of terminals 7-8): A 99.72 AB 0.28 B 0.00
node 26 (anc. of terminals 5-8): A 88.10 AB 11.07 B 0.83
node 27 (anc. of terminals 2-8): A 94.04 AB 5.89 B 0.07
node 28 (anc. of terminals 9-10): A 99.90 AB 0.10 B 0.00
node 29 (anc. of terminals 2-10): A 99.36 AB 0.63 B 0.00
node 30 (anc. of terminals 1-10): A 99.88 AB 0.12 B 0.00
node 31 (anc. of terminals 11-12): A 99.93 AB 0.07 B 0.00
node 32 (anc. of terminals 11-13): A 99.89 AB 0.11 B 0.00
node 33 (anc. of terminals 1-13): A 99.89 AB 0.11 B 0.00
node 34 (anc. of terminals 14-15): A 99.91 AB 0.09 B 0.00
node 35 (anc. of terminals 1-15): A 99.81 AB 0.19 B 0.00
node 36 (anc. of terminals 16-17): A 99.82 AB 0.18 B 0.00
node 37 (anc. of terminals 19-20): A 97.61 AB 2.39 B 0.00
node 38 (anc. of terminals 19-21): AB 52.94 A 46.98 B 0.08
node 39 (anc. of terminals 18-21): AB 56.27 A 43.67 B 0.06
node 40 (anc. of terminals 16-21): A 92.28 AB 7.70 B 0.02
node 41 (anc. of terminals 1-21): A 99.32 AB 0.60 B 0.08
[PROBABILITY]

	A(0)	A(1)	B(0)	B(1)
node 22:	0.084838	0.915162	0.111372	0.888629
node 23:	0.009862	0.990138	0.869919	0.130082
node 24:	0.921878	0.078123	0.061725	0.938275
node 25:	0.000788	0.999213	0.997725	0.002276
node 26:	0.063528	0.936472	0.903248	0.096752
node 27:	0.009600	0.990400	0.948127	0.051874
node 28:	0.000672	0.999328	0.999100	0.000901
node 29:	0.001612	0.998389	0.994133	0.005868
node 30:	0.000678	0.999323	0.998667	0.001333
node 31:	0.000370	0.999631	0.999389	0.000611
node 32:	0.000535	0.999466	0.999025	0.000976

node 33:	0.000755	0.999246	0.998887	0.001113
node 34:	0.000555	0.999446	0.999102	0.000899
node 35:	0.002174	0.997827	0.997953	0.002048
node 36:	0.000751	0.999250	0.997801	0.002200
node 37:	0.001169	0.998832	0.972683	0.027318
node 38:	0.001515	0.998486	0.467000	0.533001
node 39:	0.001029	0.998971	0.426253	0.573747
node 40:	0.003774	0.996226	0.923318	0.076682
node 41:	0.106516	0.893485	0.994097	0.005904