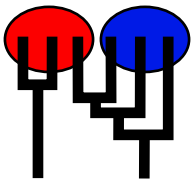
simdata

POPULATION SIZE, MIGRATION, DIVERGENCE, ASSIGNMENT, HISTORY
Bayesian inference using the structured coalescent
Migrate-n version 5.0.5(git:Distribution-version) [March-15-2024]
Compiled for PARALLEL computer architectures
One master and 7 compute nodes are available.
Program started at Sat Mar 16 17:30:24 2024
Program finished at Sat Mar 16 17:43:22 2024 [Runtime:0000:00:12:58]



Options

Inheritance multipliers in use for Thetas:
All loci use an inheritance multiplier of 1.0
Random number seed: (with internal timer) 1666654448
Start parameters:

Theta values were generated Using a percent value of the prior

M values were generated Using a percent value of the prior

Connection matrix:
m = average (average over a group of Thetas or M,
s = symmetric migration M, S = symmetric 4Nm,
0 = zero, and not estimated,
* = migration free to vary, Thetas are on diagonal
d = row population split off column population, D = split and then migration

Population	1	2	3	4	5	6	7	8	9	10
1 Romanshorn_0	*	d	0	0	0	0	0	0	0	0
2 Arbon_1	0	*	d	0	0	0	0	0	0	0
3 Kreuzlingen_2	0	0	*	d	0	0	0	0	0	0
4 Frauenfeld_3	0	0	0	*	d	0	0	0	0	0
5 Guendelhart_4	0	0	0	0	*	d	0	0	0	0
6 Homburg_5	0	0	0	0	0	*	d	0	0	0
7 Aarau_6	0	0	0	0	0	0	*	d	0	0
8 L'Abbaye_7	0	0	0	0	0	0	0	*	d	0
9 Aigle_8	0	0	0	0	0	0	0	0	*	d

10 Alpnach_9 0 0 0 0 0 0 0 0 0 *

Order of parameters:

1	Θ_1	<displayed>
2	Θ_2	<displayed>
3	Θ_3	<displayed>
4	Θ_4	<displayed>
5	Θ_5	<displayed>
6	Θ_6	<displayed>
7	Θ_7	<displayed>
8	Θ_8	<displayed>
9	Θ_9	<displayed>
10	Θ_{10}	<displayed>
11	$\Delta_{2->1}$	<displayed>
12	$\sigma_{2->1}$	<displayed>
13	$\Delta_{3->2}$	<displayed>
14	$\sigma_{3->2}$	<displayed>
15	$\Delta_{4->3}$	<displayed>
16	$\sigma_{4->3}$	<displayed>
17	$\Delta_{5->4}$	<displayed>
18	$\sigma_{5->4}$	<displayed>
19	$\Delta_{6->5}$	<displayed>
20	$\sigma_{6->5}$	<displayed>
21	$\Delta_{7->6}$	<displayed>
22	$\sigma_{7->6}$	<displayed>
23	$\Delta_{8->7}$	<displayed>
24	$\sigma_{8->7}$	<displayed>
25	$\Delta_{9->8}$	<displayed>
26	$\sigma_{9->8}$	<displayed>

27	$\Delta_{10->9}$	<displayed>
28	$\sigma_{10->9}$	<displayed>

Mutation rate among loci: Mutation rate is constant for all loci

Analysis strategy: Bayesian inference
-Population size estimation: Exponential Distribution
-Geneflow estimation: Exponential Distribution
-Divergence time estimation: Normal Distribution (mean and standard dev.)

Proposal distributions for parameter

Parameter	Proposal
Theta	Metropolis sampling
M	Metropolis sampling
Divergence	Metropolis sampling
Divergence Spread	Metropolis sampling
Genealogy	Metropolis-Hastings

Prior distribution for parameter

Parameter			Prior	Minimum	Mean	Maximum	Delta	Bins	UpdateFreq
1	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
2	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
3	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
4	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
5	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
6	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
7	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
8	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
9	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
10	Theta	**	Uniform	0.000000	0.050	0.100	0.010	1500	0.01786
11	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
12	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
13	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
14	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
15	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
16	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
17	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
18	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
19	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
20	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
21	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786

22	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
23	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
24	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
25	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
26	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
27	Splittime mean	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786
28	Splittime std	**	Gamma	0.000000	0.500	0.900	(a=1.	1500	0.01786

[* * means priors were set globally]

Markov chain settings: Long chain

Number of chains	1
Recorded steps [a]	10000
Increment (record every x step [b]	100
Number of concurrent chains (replicates) [c]	1
Visited (sampled) parameter values [a*b*c]	1000000
Number of discard trees per chain (burn-in)	1000

Multiple Markov chains:

Static heating scheme 4 chains with temperatures

1000000.00 3.00 1.50 1.00

Swapping interval is 1

Print options:

Data file:	infile.linear10
	parmfile.linear10d
Haplotyping is turned on:	NO
Output file:	outfile.linear10
Posterior distribution raw histogram file:	bayesfile
Raw data from the MCMC run:	bayesallfile.gz
Print data:	No
Print genealogies [only some for some data type]:	None

Data summary

Data file: infile.linear10
Datatype: Haplotype data
Number of loci: 10

Mutationmodel:

Locus	Sublocus	Mutationmodel	Mutationmodel parameters
1	1	Jukes-Cantor	[Basefreq: =0.25]
2	1	Jukes-Cantor	[Basefreq: =0.25]
3	1	Jukes-Cantor	[Basefreq: =0.25]
4	1	Jukes-Cantor	[Basefreq: =0.25]
5	1	Jukes-Cantor	[Basefreq: =0.25]
6	1	Jukes-Cantor	[Basefreq: =0.25]
7	1	Jukes-Cantor	[Basefreq: =0.25]
8	1	Jukes-Cantor	[Basefreq: =0.25]
9	1	Jukes-Cantor	[Basefreq: =0.25]
10	1	Jukes-Cantor	[Basefreq: =0.25]

Sites per locus

Locus	Sites
1	1000
2	1000
3	1000
4	1000
5	1000
6	1000
7	1000
8	1000
9	1000
10	1000

Site rate variation and probabilities:

Locus	Sublocus	Region type	Rate of change	Probability	Patch size
1	1	1	1.000	1.000	1.000
2	1	1	1.000	1.000	1.000
3	1	1	1.000	1.000	1.000
4	1	1	1.000	1.000	1.000
5	1	1	1.000	1.000	1.000
6	1	1	1.000	1.000	1.000

7	1	1	1.000	1.000	1.000
8	1	1	1.000	1.000	1.000
9	1	1	1.000	1.000	1.000
10	1	1	1.000	1.000	1.000

Population	Locus	Gene copies data	(missing)
1 Romanshorn_0	1	8	
	2	8	
	3	8	
	4	8	
	5	8	
	6	8	
	7	8	
	8	8	
	9	8	
	10	8	
2 Arbon_1	1	10	
	2	10	
	3	10	
	4	10	
	5	10	
	6	10	
	7	10	
	8	10	
	9	10	
	10	10	
3 Kreuzlingen_2	1	10	
	2	10	
	3	10	
	4	10	
	5	10	
	6	10	
	7	10	
	8	10	
	9	10	
	10	10	
4 Frauenfeld_3	1	10	
	2	10	
	3	10	
	4	10	
	5	10	
	6	10	
	7	10	
	8	10	
	9	10	

	10	10
5 Guendelhart_4	1	9
	2	9
	3	9
	4	9
	5	9
	6	9
	7	9
	8	9
	9	9
	10	9
6 Homburg_5	1	11
	2	11
	3	11
	4	11
	5	11
	6	11
	7	11
	8	11
	9	11
	10	11
7 Aarau_6	1	10
	2	10
	3	10
	4	10
	5	10
	6	10
	7	10
	8	10
	9	10
	10	10
8 L’Abbaye_7	1	10
	2	10
	3	10
	4	10
	5	10
	6	10
	7	10
	8	10
	9	10
	10	10
9 Aigle_8	1	10
	2	10
	3	10
	4	10

	5	10	
	6	10	
	7	10	
	8	10	
	9	10	
	10	10	
10 Alpnach_9	1	12	
	2	12	
	3	12	
	4	12	
	5	12	
	6	12	
	7	12	
	8	12	
	9	12	
	10	12	
Total of all populations	1	100	(0)
	2	100	(0)
	3	100	(0)
	4	100	(0)
	5	100	(0)
	6	100	(0)
	7	100	(0)
	8	100	(0)
	9	100	(0)
	10	100	(0)

Bayesian Analysis: Posterior distribution table

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
1	Θ_1	0.00000	0.00180	0.00517	0.01047	0.05187	0.00950	0.01599
1	Θ_2	0.00000	0.00247	0.00437	0.00647	0.01233	0.00530	0.00569
1	Θ_3	0.00000	0.00307	0.00537	0.00807	0.01887	0.00677	0.00805
1	Θ_4	0.00100	0.00460	0.00737	0.01100	0.02367	0.00937	0.01077
1	Θ_5	0.00080	0.00380	0.00577	0.00793	0.01407	0.00657	0.00695
1	Θ_6	0.00000	0.00247	0.00450	0.00687	0.01467	0.00563	0.00654
1	Θ_7	0.00000	0.00227	0.00417	0.00627	0.01413	0.00510	0.00611
1	Θ_8	0.00020	0.00340	0.00610	0.01020	0.02773	0.00883	0.01101
1	Θ_9	0.00000	0.00400	0.00643	0.00953	0.02373	0.00810	0.01046
1	Θ_{10}	0.01353	0.02013	0.02517	0.03160	0.04987	0.02823	0.02993
1	$D_{2->1}$	0.00000	0.00240	0.00990	0.01680	0.03180	0.01410	0.00241
1	$S_{2->1}$	0.00000	0.00300	0.01110	0.01800	0.03540	0.01530	0.00474
1	$D_{3->2}$	0.00000	0.00000	0.01050	0.02220	0.30180	0.02250	0.03836
1	$S_{3->2}$	0.00000	0.00000	0.01110	0.02520	0.42120	0.02550	0.06502
1	$D_{4->3}$	0.00000	0.00300	0.01050	0.01800	0.03360	0.01470	0.00390
1	$S_{4->3}$	0.00000	0.00300	0.01110	0.01860	0.03840	0.01590	0.00540
1	$D_{5->4}$	0.00000	0.00240	0.00990	0.01620	0.03120	0.01410	0.00252
1	$S_{5->4}$	0.00000	0.00360	0.01170	0.01920	0.03600	0.01590	0.00583
1	$D_{6->5}$	0.00000	0.00360	0.01230	0.01980	0.03780	0.01650	0.00760
1	$S_{6->5}$	0.00000	0.00300	0.01170	0.01920	0.04260	0.01650	0.00624
1	$D_{7->6}$	0.00000	0.00300	0.01110	0.01800	0.03300	0.01470	0.00445
1	$S_{7->6}$	0.00000	0.00360	0.01230	0.01980	0.03960	0.01650	0.00715
1	$D_{8->7}$	0.00000	0.00240	0.00990	0.01620	0.03120	0.01410	0.00218
1	$S_{8->7}$	0.00000	0.00300	0.01050	0.01740	0.03360	0.01470	0.00351
1	$D_{9->8}$	0.00000	0.00180	0.00930	0.01560	0.03000	0.01350	0.00113
1	$S_{9->8}$	0.00000	0.00240	0.00990	0.01680	0.03180	0.01410	0.00296
1	$D_{10->9}$	0.00000	0.00240	0.00930	0.01620	0.03060	0.01410	0.00211
1	$S_{10->9}$	0.00000	0.00240	0.00990	0.01680	0.03180	0.01410	0.00298
2	Θ_1	0.00000	0.00087	0.00210	0.00333	0.00673	0.00270	0.00233
2	Θ_2	0.00000	0.00167	0.00363	0.00587	0.01513	0.00483	0.00577
2	Θ_3	0.00000	0.00327	0.00550	0.00793	0.01593	0.00650	0.00746
2	Θ_4	0.00000	0.00267	0.00490	0.00760	0.02713	0.00637	0.00950
2	Θ_5	0.00000	0.00153	0.00303	0.00460	0.00860	0.00363	0.00370
2	Θ_6	0.00180	0.00607	0.00983	0.01460	0.03607	0.01277	0.01549
2	Θ_7	0.00093	0.00333	0.00757	0.01660	0.07160	0.01543	0.02462

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
2	Θ_8	0.00000	0.00100	0.00230	0.00367	0.00767	0.00297	0.00278
2	Θ_9	0.00213	0.00613	0.00930	0.01347	0.02840	0.01157	0.01314
2	Θ_{10}	0.02560	0.03540	0.04250	0.05147	0.07700	0.04630	0.04836
2	$D_{2->1}$	0.00000	0.00540	0.03330	0.16260	0.59700	0.15810	0.20469
2	$S_{2->1}$	0.00300	0.04260	0.16830	0.34200	0.80580	0.31110	0.35446
2	$D_{3->2}$	0.00000	0.00180	0.00990	0.01740	0.08280	0.01530	0.00878
2	$S_{3->2}$	0.00000	0.00180	0.01050	0.01860	0.18960	0.01710	0.01877
2	$D_{4->3}$	0.00000	0.00300	0.01350	0.02280	0.06960	0.01950	0.01394
2	$S_{4->3}$	0.00000	0.00180	0.01590	0.02820	0.13440	0.02670	0.03042
2	$D_{5->4}$	0.00000	0.00240	0.01110	0.01860	0.04560	0.01590	0.00637
2	$S_{5->4}$	0.00000	0.00360	0.01350	0.02280	0.07800	0.01950	0.01435
2	$D_{6->5}$	0.00000	0.00300	0.01170	0.01920	0.04920	0.01650	0.00744
2	$S_{6->5}$	0.00000	0.00240	0.01170	0.01980	0.06720	0.01710	0.01011
2	$D_{7->6}$	0.00000	0.00300	0.01170	0.01860	0.04020	0.01590	0.00606
2	$S_{7->6}$	0.00000	0.00360	0.01470	0.02400	0.06540	0.02070	0.01401
2	$D_{8->7}$	0.00000	0.00300	0.01050	0.01740	0.03300	0.01470	0.00334
2	$S_{8->7}$	0.00000	0.00240	0.01110	0.01860	0.04320	0.01590	0.00569
2	$D_{9->8}$	0.00000	0.00240	0.00990	0.01680	0.03360	0.01470	0.00295
2	$S_{9->8}$	0.00000	0.00300	0.01230	0.01980	0.04560	0.01710	0.00704
2	$D_{10->9}$	0.00000	0.00300	0.01110	0.01800	0.03420	0.01470	0.00422
2	$S_{10->9}$	0.00000	0.00360	0.01230	0.01980	0.04020	0.01650	0.00762
3	Θ_1	0.00000	0.00080	0.00223	0.00380	0.01080	0.00317	0.00339
3	Θ_2	0.00007	0.00407	0.00683	0.01040	0.02827	0.00890	0.01168
3	Θ_3	0.00000	0.00300	0.00550	0.00860	0.02053	0.00723	0.00860
3	Θ_4	0.00193	0.00613	0.00943	0.01427	0.03547	0.01250	0.01568
3	Θ_5	0.00000	0.00113	0.00250	0.00393	0.00773	0.00310	0.00301
3	Θ_6	0.00000	0.00353	0.00630	0.01040	0.03260	0.00897	0.01190
3	Θ_7	0.00533	0.01113	0.01630	0.02560	0.05967	0.02290	0.02742
3	Θ_8	0.00000	0.00240	0.00410	0.00580	0.01020	0.00463	0.00486
3	Θ_9	0.00020	0.00380	0.00657	0.01013	0.02520	0.00870	0.01079
3	Θ_{10}	0.01267	0.01760	0.02097	0.02720	0.04067	0.02437	0.02547
3	$D_{2->1}$	0.00000	0.00240	0.01050	0.01860	0.07140	0.01590	0.00840
3	$S_{2->1}$	0.00000	0.00240	0.01230	0.02100	0.13140	0.01830	0.01915
3	$D_{3->2}$	0.00000	0.00240	0.00990	0.01680	0.03300	0.01410	0.00316
3	$S_{3->2}$	0.00000	0.00300	0.01110	0.01800	0.03720	0.01530	0.00587
3	$D_{4->3}$	0.00000	0.00180	0.01110	0.01920	0.09600	0.01710	0.01087
3	$S_{4->3}$	0.00000	0.00120	0.01170	0.02160	0.14820	0.02010	0.02030
3	$D_{5->4}$	0.00000	0.00300	0.01050	0.01740	0.03420	0.01470	0.00331
3	$S_{5->4}$	0.00000	0.00360	0.01230	0.02040	0.04260	0.01710	0.00727
3	$D_{6->5}$	0.00000	0.00240	0.01230	0.02160	0.11760	0.01950	0.01663

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
3	$S_{6->5}$	0.00000	0.00000	0.01110	0.02220	0.24540	0.02190	0.03045
3	$D_{7->6}$	0.00000	0.00180	0.00870	0.01560	0.03000	0.01350	0.00088
3	$S_{7->6}$	0.00000	0.00300	0.01110	0.01800	0.03480	0.01530	0.00481
3	$D_{8->7}$	0.00000	0.00300	0.01050	0.01740	0.03240	0.01470	0.00345
3	$S_{8->7}$	0.00000	0.00300	0.01170	0.01860	0.03540	0.01530	0.00500
3	$D_{9->8}$	0.00000	0.00300	0.01170	0.01920	0.04440	0.01650	0.00630
3	$S_{9->8}$	0.00000	0.00120	0.01230	0.02220	0.07320	0.02070	0.01213
3	$D_{10->9}$	0.00000	0.00180	0.00930	0.01560	0.03060	0.01350	0.00141
3	$S_{10->9}$	0.00000	0.00300	0.01050	0.01740	0.03240	0.01470	0.00327
4	Θ_{1}	0.00000	0.00080	0.00217	0.00373	0.01167	0.00310	0.00453
4	Θ_{2}	0.00140	0.00560	0.00890	0.01373	0.03033	0.01177	0.01377
4	Θ_{3}	0.00760	0.01140	0.02183	0.04367	0.06580	0.03970	0.04533
4	Θ_{4}	0.00000	0.00220	0.00403	0.00600	0.01107	0.00483	0.00508
4	Θ_{5}	0.00000	0.00220	0.00437	0.00713	0.01693	0.00597	0.00702
4	Θ_{6}	0.00007	0.00340	0.00723	0.01493	0.05473	0.01350	0.01953
4	Θ_{7}	0.00000	0.00247	0.00410	0.00567	0.00913	0.00450	0.00459
4	Θ_{8}	0.00000	0.00327	0.00677	0.01187	0.04840	0.01043	0.01562
4	Θ_{9}	0.00000	0.00140	0.00330	0.00553	0.01600	0.00470	0.00583
4	Θ_{10}	0.02487	0.03220	0.03830	0.04513	0.06813	0.04143	0.04354
4	$D_{2->1}$	0.00000	0.00000	0.01290	0.03060	0.31560	0.03090	0.05318
4	$S_{2->1}$	0.00000	0.00000	0.01410	0.05040	0.58860	0.05070	0.11153
4	$D_{3->2}$	0.00000	0.00240	0.01110	0.01920	0.07740	0.01650	0.01098
4	$S_{3->2}$	0.00000	0.00240	0.01170	0.02040	0.17160	0.01830	0.02131
4	$D_{4->3}$	0.00000	0.00180	0.00930	0.01560	0.03000	0.01350	0.00115
4	$S_{4->3}$	0.00000	0.00180	0.00930	0.01560	0.03000	0.01350	0.00114
4	$D_{5->4}$	0.00000	0.00180	0.00930	0.01560	0.03060	0.01350	0.00149
4	$S_{5->4}$	0.00000	0.00240	0.00990	0.01680	0.03180	0.01410	0.00300
4	$D_{6->5}$	0.00000	0.00180	0.00930	0.01560	0.03060	0.01350	0.00107
4	$S_{6->5}$	0.00000	0.00240	0.00930	0.01620	0.03120	0.01410	0.00195
4	$D_{7->6}$	0.00000	0.00180	0.00930	0.01620	0.03240	0.01410	0.00202
4	$S_{7->6}$	0.00000	0.00240	0.01050	0.01740	0.03480	0.01470	0.00392
4	$D_{8->7}$	0.00000	0.00300	0.01050	0.01800	0.03420	0.01470	0.00430
4	$S_{8->7}$	0.00000	0.00240	0.01050	0.01800	0.03900	0.01530	0.00523
4	$D_{9->8}$	0.00000	0.00240	0.00930	0.01620	0.03060	0.01350	0.00152
4	$S_{9->8}$	0.00000	0.00180	0.00930	0.01560	0.03060	0.01350	0.00135
4	$D_{10->9}$	0.00000	0.00180	0.00870	0.01560	0.03000	0.01350	0.00097
4	$S_{10->9}$	0.00000	0.00240	0.00930	0.01620	0.03060	0.01350	0.00156
5	Θ_{1}	0.00000	0.00240	0.00450	0.00680	0.01513	0.00557	0.00637
5	Θ_{2}	0.00013	0.00460	0.00810	0.01387	0.03860	0.01197	0.01500

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
5	Θ_3	0.00000	0.00107	0.00330	0.00813	0.02487	0.00730	0.00901
5	Θ_4	0.00033	0.00387	0.00763	0.01400	0.04533	0.01250	0.01711
5	Θ_5	0.00000	0.00107	0.00230	0.00347	0.00593	0.00270	0.00239
5	Θ_6	0.00067	0.00407	0.00757	0.01393	0.03833	0.01223	0.01515
5	Θ_7	0.00000	0.00280	0.00490	0.00767	0.01533	0.00630	0.00703
5	Θ_8	0.00000	0.00107	0.00237	0.00367	0.00673	0.00290	0.00263
5	Θ_9	0.00020	0.00313	0.00570	0.00953	0.02293	0.00817	0.00970
5	Θ_{10}	0.03027	0.03760	0.04883	0.06033	0.09213	0.05490	0.05759
5	$D_{2->1}$	0.00000	0.00000	0.01830	0.05760	0.39180	0.05790	0.09185
5	$S_{2->1}$	0.00000	0.00000	0.02010	0.11460	0.69120	0.11490	0.18583
5	$D_{3->2}$	0.00000	0.00180	0.00930	0.01620	0.04440	0.01470	0.00580
5	$S_{3->2}$	0.00000	0.00180	0.00990	0.01680	0.08880	0.01530	0.01066
5	$D_{4->3}$	0.00000	0.00420	0.01350	0.02160	0.04620	0.01770	0.00951
5	$S_{4->3}$	0.00000	0.00540	0.01770	0.02940	0.07800	0.02490	0.02209
5	$D_{5->4}$	0.00000	0.00180	0.00930	0.01620	0.03240	0.01410	0.00221
5	$S_{5->4}$	0.00000	0.00300	0.01170	0.01860	0.03660	0.01590	0.00576
5	$D_{6->5}$	0.00000	0.00360	0.01110	0.01860	0.03540	0.01530	0.00527
5	$S_{6->5}$	0.00000	0.00300	0.01110	0.01860	0.03720	0.01590	0.00594
5	$D_{7->6}$	0.00000	0.00240	0.00990	0.01680	0.03240	0.01410	0.00259
5	$S_{7->6}$	0.00000	0.00360	0.01290	0.02100	0.04620	0.01770	0.00843
5	$D_{8->7}$	0.00000	0.00300	0.01110	0.01860	0.03600	0.01530	0.00445
5	$S_{8->7}$	0.00000	0.00360	0.01230	0.02040	0.04380	0.01710	0.00700
5	$D_{9->8}$	0.00000	0.00240	0.00930	0.01620	0.03180	0.01410	0.00194
5	$S_{9->8}$	0.00000	0.00300	0.01110	0.01800	0.03540	0.01530	0.00487
5	$D_{10->9}$	0.00000	0.00300	0.01050	0.01740	0.03300	0.01470	0.00366
5	$S_{10->9}$	0.00000	0.00300	0.01110	0.01800	0.03360	0.01530	0.00510
6	Θ_1	0.00000	0.00093	0.00243	0.00407	0.01307	0.00343	0.00399
6	Θ_2	0.00000	0.00207	0.00403	0.00620	0.01620	0.00517	0.00619
6	Θ_3	0.00000	0.00240	0.00450	0.00673	0.01460	0.00557	0.00633
6	Θ_4	0.00000	0.00320	0.00750	0.01333	0.05407	0.01177	0.01809
6	Θ_5	0.00173	0.00500	0.00743	0.01067	0.02000	0.00910	0.00991
6	Θ_6	0.00320	0.00813	0.01437	0.02333	0.07053	0.02083	0.02716
6	Θ_7	0.00187	0.00627	0.00963	0.01553	0.03733	0.01357	0.01614
6	Θ_8	0.00000	0.00260	0.00443	0.00640	0.01120	0.00517	0.00545
6	Θ_9	0.00000	0.00173	0.00377	0.00620	0.01553	0.00517	0.00607
6	Θ_{10}	0.01920	0.02580	0.03170	0.03907	0.06567	0.03577	0.03842
6	$D_{2->1}$	0.00000	0.00180	0.00990	0.01680	0.03660	0.01470	0.00433
6	$S_{2->1}$	0.00000	0.00180	0.01050	0.01860	0.08340	0.01650	0.01037
6	$D_{3->2}$	0.00000	0.00000	0.01290	0.02880	0.34620	0.02910	0.05029
6	$S_{3->2}$	0.00000	0.00000	0.01290	0.04740	0.56400	0.04770	0.09968

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
6	$D_{4->3}$	0.00000	0.00180	0.00930	0.01560	0.03120	0.01350	0.00158
6	$S_{4->3}$	0.00000	0.00240	0.01050	0.01740	0.03480	0.01470	0.00487
6	$D_{5->4}$	0.00000	0.00240	0.00990	0.01740	0.03600	0.01470	0.00268
6	$S_{5->4}$	0.00000	0.00180	0.01110	0.01920	0.05880	0.01710	0.00726
6	$D_{6->5}$	0.00000	0.00420	0.01350	0.02160	0.04560	0.01770	0.00932
6	$S_{6->5}$	0.00000	0.00300	0.01350	0.02340	0.07380	0.02010	0.01393
6	$D_{7->6}$	0.00000	0.00240	0.01050	0.01800	0.03780	0.01530	0.00453
6	$S_{7->6}$	0.00000	0.00180	0.01110	0.01980	0.08340	0.01830	0.01126
6	$D_{8->7}$	0.00000	0.00240	0.00990	0.01680	0.03180	0.01410	0.00252
6	$S_{8->7}$	0.00000	0.00300	0.01110	0.01920	0.04320	0.01650	0.00526
6	$D_{9->8}$	0.00000	0.00300	0.01110	0.01860	0.03780	0.01530	0.00492
6	$S_{9->8}$	0.00000	0.00240	0.01110	0.01920	0.05580	0.01710	0.00786
6	$D_{10->9}$	0.00000	0.00240	0.00990	0.01620	0.03180	0.01410	0.00223
6	$S_{10->9}$	0.00000	0.00240	0.01110	0.01920	0.04920	0.01710	0.00624
7	Θ_1	0.00000	0.00060	0.00177	0.00273	0.00547	0.00223	0.00157
7	Θ_2	0.00000	0.00080	0.00290	0.00573	0.02487	0.00517	0.00757
7	Θ_3	0.00000	0.00260	0.00483	0.00747	0.01573	0.00610	0.00714
7	Θ_4	0.00027	0.00360	0.00577	0.00833	0.01767	0.00697	0.00802
7	Θ_5	0.00033	0.00327	0.00557	0.00840	0.01747	0.00703	0.00802
7	Θ_6	0.00000	0.00267	0.00503	0.00840	0.01853	0.00703	0.00802
7	Θ_7	0.00000	0.00327	0.00637	0.01127	0.04873	0.00997	0.01591
7	Θ_8	0.00373	0.00880	0.01297	0.02020	0.04800	0.01783	0.02106
7	Θ_9	0.00313	0.00833	0.01323	0.02060	0.05340	0.01837	0.02259
7	Θ_{10}	0.02567	0.03880	0.05017	0.05700	0.08033	0.04997	0.05135
7	$D_{2->1}$	0.00000	0.00000	0.01830	0.09960	0.50700	0.09990	0.14692
7	$S_{2->1}$	0.00000	0.00000	0.02010	0.21240	0.73800	0.21270	0.26923
7	$D_{3->2}$	0.00000	0.00060	0.00930	0.01740	0.29760	0.01710	0.02149
7	$S_{3->2}$	0.00000	0.00060	0.00990	0.01860	0.35520	0.01770	0.03544
7	$D_{4->3}$	0.00000	0.00180	0.01230	0.02100	0.08100	0.01890	0.01226
7	$S_{4->3}$	0.00000	0.00120	0.01350	0.02400	0.14040	0.02310	0.02447
7	$D_{5->4}$	0.00000	0.00360	0.01170	0.01920	0.03540	0.01590	0.00633
7	$S_{5->4}$	0.00000	0.00540	0.01470	0.02280	0.04140	0.01830	0.01240
7	$D_{6->5}$	0.00000	0.00000	0.01410	0.02700	0.17100	0.02670	0.03578
7	$S_{6->5}$	0.00000	0.00000	0.01230	0.04140	0.32640	0.04350	0.06542
7	$D_{7->6}$	0.00000	0.00120	0.01170	0.02160	0.10380	0.02070	0.01645
7	$S_{7->6}$	0.00000	0.00000	0.01170	0.02640	0.19560	0.02670	0.03935
7	$D_{8->7}$	0.00000	0.00180	0.00990	0.01680	0.03720	0.01470	0.00313
7	$S_{8->7}$	0.00000	0.00360	0.01290	0.02160	0.04920	0.01830	0.00907
7	$D_{9->8}$	0.00000	0.00300	0.01050	0.01740	0.03360	0.01470	0.00407
7	$S_{9->8}$	0.00000	0.00480	0.01350	0.02160	0.03960	0.01710	0.00993

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
7	$D_{10->9}$	0.00000	0.00300	0.01050	0.01740	0.03300	0.01470	0.00387
7	$S_{10->9}$	0.00000	0.00360	0.01170	0.01920	0.03540	0.01530	0.00570
8	Θ_1	0.00000	0.00053	0.00150	0.00247	0.00480	0.00197	0.00113
8	Θ_2	0.00000	0.00133	0.00290	0.00480	0.01093	0.00390	0.00416
8	Θ_3	0.00300	0.00607	0.01223	0.02447	0.08107	0.02270	0.03218
8	Θ_4	0.00000	0.00280	0.00470	0.00687	0.01387	0.00557	0.00635
8	Θ_5	0.00620	0.01220	0.01643	0.02280	0.04200	0.01990	0.02210
8	Θ_6	0.00000	0.00313	0.00563	0.00867	0.02267	0.00737	0.00902
8	Θ_7	0.00000	0.00147	0.00550	0.01113	0.06747	0.01030	0.02227
8	Θ_8	0.00000	0.00167	0.00323	0.00487	0.00940	0.00390	0.00405
8	Θ_9	0.00140	0.00473	0.00690	0.00933	0.01667	0.00783	0.00846
8	Θ_{10}	0.01913	0.02667	0.03103	0.03893	0.06147	0.03530	0.03753
8	$D_{2->1}$	0.00000	0.00960	0.04650	0.15780	0.55080	0.15030	0.19917
8	$S_{2->1}$	0.00360	0.03360	0.13110	0.33300	0.79680	0.30990	0.35226
8	$D_{3->2}$	0.00000	0.00180	0.00930	0.01560	0.03060	0.01350	0.00149
8	$S_{3->2}$	0.00000	0.00240	0.00990	0.01680	0.03180	0.01410	0.00319
8	$D_{4->3}$	0.00000	0.00180	0.01050	0.01800	0.07320	0.01590	0.00805
8	$S_{4->3}$	0.00000	0.00180	0.01170	0.02040	0.12540	0.01890	0.01599
8	$D_{5->4}$	0.00000	0.00240	0.01050	0.01800	0.04020	0.01530	0.00381
8	$S_{5->4}$	0.00000	0.00240	0.01170	0.01980	0.05880	0.01710	0.00833
8	$D_{6->5}$	0.00000	0.00300	0.01110	0.01800	0.03480	0.01530	0.00553
8	$S_{6->5}$	0.00000	0.00240	0.01050	0.01740	0.03780	0.01530	0.00439
8	$D_{7->6}$	0.00000	0.00300	0.01050	0.01800	0.03480	0.01470	0.00391
8	$S_{7->6}$	0.00000	0.00300	0.01170	0.02040	0.05040	0.01770	0.00740
8	$D_{8->7}$	0.00000	0.00120	0.01050	0.01860	0.06720	0.01710	0.00652
8	$S_{8->7}$	0.00000	0.00000	0.00990	0.02220	0.14280	0.02250	0.02094
8	$D_{9->8}$	0.00000	0.00240	0.00990	0.01740	0.03600	0.01470	0.00373
8	$S_{9->8}$	0.00000	0.00180	0.01050	0.01800	0.05700	0.01590	0.00609
8	$D_{10->9}$	0.00000	0.00240	0.01110	0.01860	0.04320	0.01590	0.00594
8	$S_{10->9}$	0.00000	0.00000	0.01110	0.02220	0.08760	0.02250	0.01544
9	Θ_1	0.00000	0.00193	0.00470	0.00833	0.06320	0.00730	0.01566
9	Θ_2	0.00107	0.00313	0.00797	0.02180	0.08387	0.02050	0.03116
9	Θ_3	0.00000	0.00287	0.00510	0.00793	0.01693	0.00663	0.00758
9	Θ_4	0.00573	0.01073	0.01650	0.02707	0.06060	0.02443	0.02985
9	Θ_5	0.00033	0.00320	0.00510	0.00727	0.01320	0.00590	0.00637
9	Θ_6	0.00000	0.00327	0.00543	0.00793	0.01680	0.00657	0.00765
9	Θ_7	0.00000	0.00167	0.00343	0.00547	0.01273	0.00450	0.00509
9	Θ_8	0.00000	0.00200	0.00363	0.00527	0.00933	0.00417	0.00430
9	Θ_9	0.00000	0.00247	0.00443	0.00653	0.01300	0.00537	0.00589

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
9	Θ_{10}	0.03407	0.04353	0.05117	0.06207	0.09080	0.05657	0.05903
9	$D_{2->1}$	0.00000	0.00000	0.01170	0.07980	0.50580	0.08010	0.10761
9	$S_{2->1}$	0.00000	0.00000	0.01110	0.13380	0.67980	0.16890	0.18615
9	$D_{3->2}$	0.00000	0.00180	0.00930	0.01680	0.07320	0.01530	0.00626
9	$S_{3->2}$	0.00000	0.00120	0.00990	0.01740	0.15660	0.01650	0.01286
9	$D_{4->3}$	0.00000	0.00360	0.01290	0.02040	0.04440	0.01710	0.00925
9	$S_{4->3}$	0.00000	0.00420	0.01530	0.02460	0.07140	0.02130	0.01770
9	$D_{5->4}$	0.00000	0.00240	0.00990	0.01680	0.03180	0.01410	0.00272
9	$S_{5->4}$	0.00000	0.00360	0.01170	0.01920	0.03480	0.01590	0.00693
9	$D_{6->5}$	0.00000	0.00420	0.01290	0.02040	0.03900	0.01650	0.00802
9	$S_{6->5}$	0.00000	0.00420	0.01290	0.02100	0.04080	0.01710	0.00845
9	$D_{7->6}$	0.00000	0.00360	0.01170	0.01980	0.04080	0.01650	0.00668
9	$S_{7->6}$	0.00000	0.00420	0.01410	0.02280	0.05100	0.01890	0.01285
9	$D_{8->7}$	0.00000	0.00240	0.00930	0.01620	0.03120	0.01410	0.00178
9	$S_{8->7}$	0.00000	0.00300	0.01050	0.01740	0.03300	0.01470	0.00372
9	$D_{9->8}$	0.00000	0.00240	0.00990	0.01680	0.03240	0.01470	0.00275
9	$S_{9->8}$	0.00000	0.00360	0.01230	0.01980	0.03720	0.01650	0.00705
9	$D_{10->9}$	0.00000	0.00240	0.00990	0.01680	0.03300	0.01470	0.00313
9	$S_{10->9}$	0.00000	0.00240	0.01050	0.01800	0.03720	0.01530	0.00461
10	Θ_{1}	0.00000	0.00300	0.00550	0.00907	0.02247	0.00763	0.00916
10	Θ_{2}	0.00000	0.00233	0.00443	0.00687	0.01427	0.00557	0.00630
10	Θ_{3}	0.00327	0.00893	0.01510	0.01927	0.03627	0.01643	0.01819
10	Θ_{4}	0.00000	0.00193	0.00437	0.00787	0.02107	0.00677	0.00817
10	Θ_{5}	0.00360	0.00740	0.01010	0.01347	0.02253	0.01157	0.01228
10	Θ_{6}	0.00040	0.00400	0.00643	0.00940	0.01893	0.00783	0.00882
10	Θ_{7}	0.00087	0.00460	0.00717	0.01020	0.02020	0.00857	0.00954
10	Θ_{8}	0.00013	0.00407	0.00690	0.01040	0.02660	0.00890	0.01155
10	Θ_{9}	0.00540	0.01047	0.01550	0.02153	0.04313	0.01903	0.02131
10	Θ_{10}	0.03420	0.04400	0.05230	0.06080	0.08467	0.05517	0.05694
10	$D_{2->1}$	0.00000	0.00240	0.01170	0.02040	0.11880	0.01770	0.01588
10	$S_{2->1}$	0.00000	0.00240	0.01350	0.02400	0.23700	0.02130	0.03402
10	$D_{3->2}$	0.00000	0.00180	0.00990	0.01740	0.09780	0.01590	0.01218
10	$S_{3->2}$	0.00000	0.00240	0.01050	0.01860	0.21000	0.01650	0.02137
10	$D_{4->3}$	0.00000	0.00000	0.01350	0.02880	0.16260	0.02910	0.03203
10	$S_{4->3}$	0.00000	0.00000	0.01350	0.03900	0.34440	0.06030	0.07883
10	$D_{5->4}$	0.00000	0.00240	0.01350	0.02280	0.06780	0.02070	0.01217
10	$S_{5->4}$	0.00000	0.00000	0.01290	0.03000	0.13560	0.05070	0.04058
10	$D_{6->5}$	0.00000	0.00660	0.02490	0.05700	0.24660	0.05190	0.07229
10	$S_{6->5}$	0.00000	0.01140	0.03570	0.08520	0.46140	0.07710	0.12376
10	$D_{7->6}$	0.00000	0.00000	0.01350	0.02760	0.13980	0.02790	0.02935

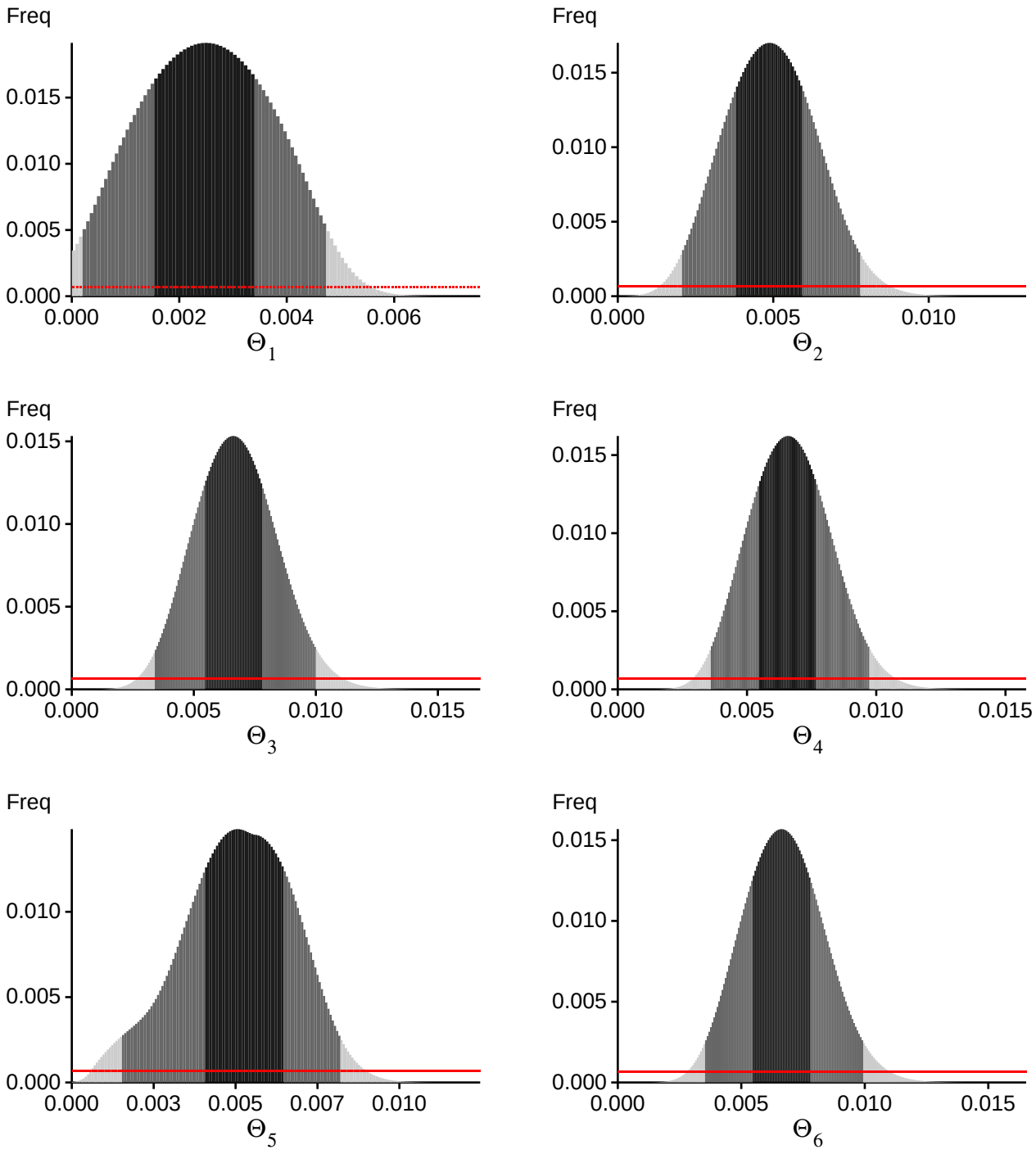
Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
10	$S_{7->6}$	0.00000	0.00000	0.01470	0.03900	0.25680	0.05670	0.07095
10	$D_{8->7}$	0.00000	0.00300	0.01170	0.01920	0.04020	0.01650	0.00641
10	$S_{8->7}$	0.00000	0.00600	0.01770	0.02880	0.06180	0.02370	0.01826
10	$D_{9->8}$	0.00000	0.00360	0.01290	0.02100	0.04500	0.01770	0.00842
10	$S_{9->8}$	0.00000	0.00000	0.01470	0.03420	0.09480	0.03750	0.03188
10	$D_{10->9}$	0.00000	0.00300	0.01110	0.01800	0.03420	0.01530	0.00467
10	$S_{10->9}$	0.00000	0.00600	0.01590	0.02400	0.04320	0.01950	0.01271
All	Θ_1	0.00013	0.00147	0.00250	0.00340	0.00473	0.00257	0.00250
All	Θ_2	0.00200	0.00373	0.00490	0.00593	0.00780	0.00497	0.00492
All	Θ_3	0.00333	0.00540	0.00663	0.00780	0.01000	0.00677	0.00672
All	Θ_4	0.00353	0.00540	0.00657	0.00767	0.00973	0.00670	0.00666
All	Θ_5	0.00147	0.00400	0.00503	0.00647	0.00820	0.00517	0.00506
All	Θ_6	0.00347	0.00540	0.00663	0.00780	0.00993	0.00677	0.00672
All	Θ_7	0.00333	0.00520	0.00637	0.00747	0.00947	0.00643	0.00642
All	Θ_8	0.00180	0.00333	0.00443	0.00540	0.00700	0.00450	0.00443
All	Θ_9	0.00407	0.00600	0.00717	0.00833	0.01047	0.00730	0.00726
All	Θ_{10}	0.03367	0.03760	0.03963	0.04167	0.04593	0.03983	0.03982
All	$D_{2->1}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{2->1}$	0.00000	0.00240	0.00930	0.01620	0.02880	0.01350	0.00956
All	$D_{3->2}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{3->2}$	0.00000	0.00000	0.00570	0.01080	0.02460	0.01110	0.00554
All	$D_{4->3}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{4->3}$	0.00000	0.00120	0.00750	0.01380	0.02700	0.01230	0.00752
All	$D_{5->4}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{5->4}$	0.00000	0.00060	0.00690	0.01320	0.02640	0.01230	0.00715
All	$D_{6->5}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{6->5}$	0.00000	0.00120	0.00750	0.01380	0.02700	0.01230	0.00761
All	$D_{7->6}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{7->6}$	0.00000	0.00060	0.00750	0.01320	0.02700	0.01230	0.00744
All	$D_{8->7}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{8->7}$	0.00000	0.00000	0.00630	0.01200	0.02580	0.01170	0.00643
All	$D_{9->8}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{9->8}$	0.00000	0.00000	0.00630	0.01200	0.02580	0.01170	0.00645
All	$D_{10->9}$	0.00000	0.00000	0.00150	0.00840	0.01920	0.00870	0.00031
All	$S_{10->9}$	0.00000	0.00000	0.00630	0.01200	0.02580	0.01170	0.00633

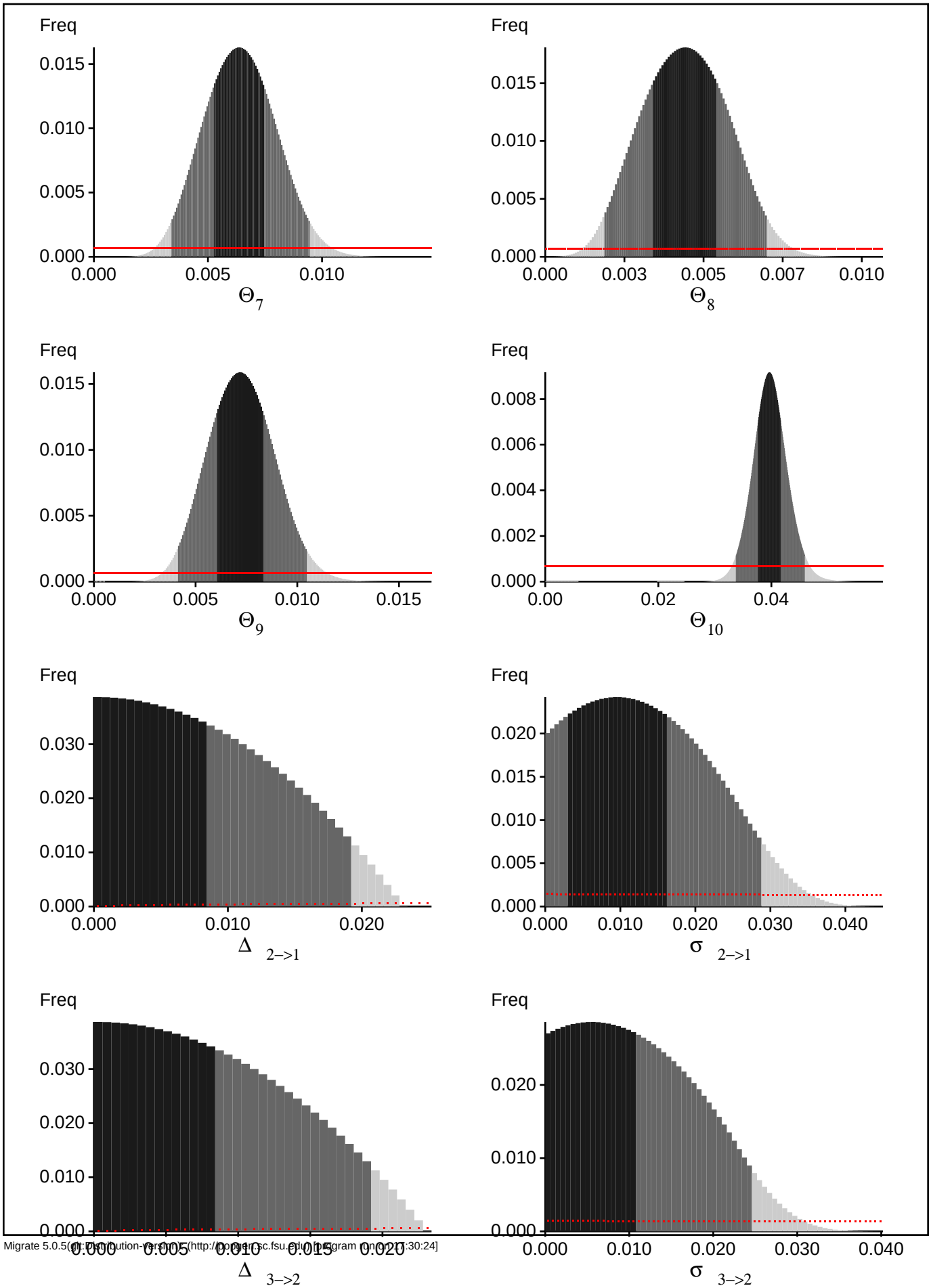
Citation suggestions:

Beerli P., 2006. Comparison of Bayesian and maximum-likelihood inference of population genetic parameters. Bioinformatics 22:341-345

Beerli P., 2009. How to use MIGRATE or why are Markov chain Monte Carlo programs difficult to use?
In Population Genetics for Animal Conservation, G. Bertorelle, M. W. Bruford, H. C. Hauffe, A. Rizzoli,
and C. Vernesi, eds., vol. 17 of Conservation Biology, Cambridge University Press, Cambridge UK, pp. 42-79.

Bayesian Analysis: Posterior distribution over all loci

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0.000
0.005
0.010
Θ7
Freq
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0.005
0.000
0.000
0.003
0.005
0.007
0.010
Θ8
Freq
0.015
0.010
0.005
0.000
0.000
0.005
0.010
0.015
Θ9
Freq
0.008
0.006
0.004
0.002
0.000
0.00
0.02
0.04
Θ10
Freq
0.030
0.020
0.010
0.000
0.000
0.010
0.020
Δ 2–>1
Freq
0.020
0.015
0.010
0.005
0.000
0.000
0.010
0.020
0.030
0.040
σ 2–>1
Freq
0.030
0.020
0.010
0.000
0.000
0.005
0.010
0.015
0.020
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Freq
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0.010
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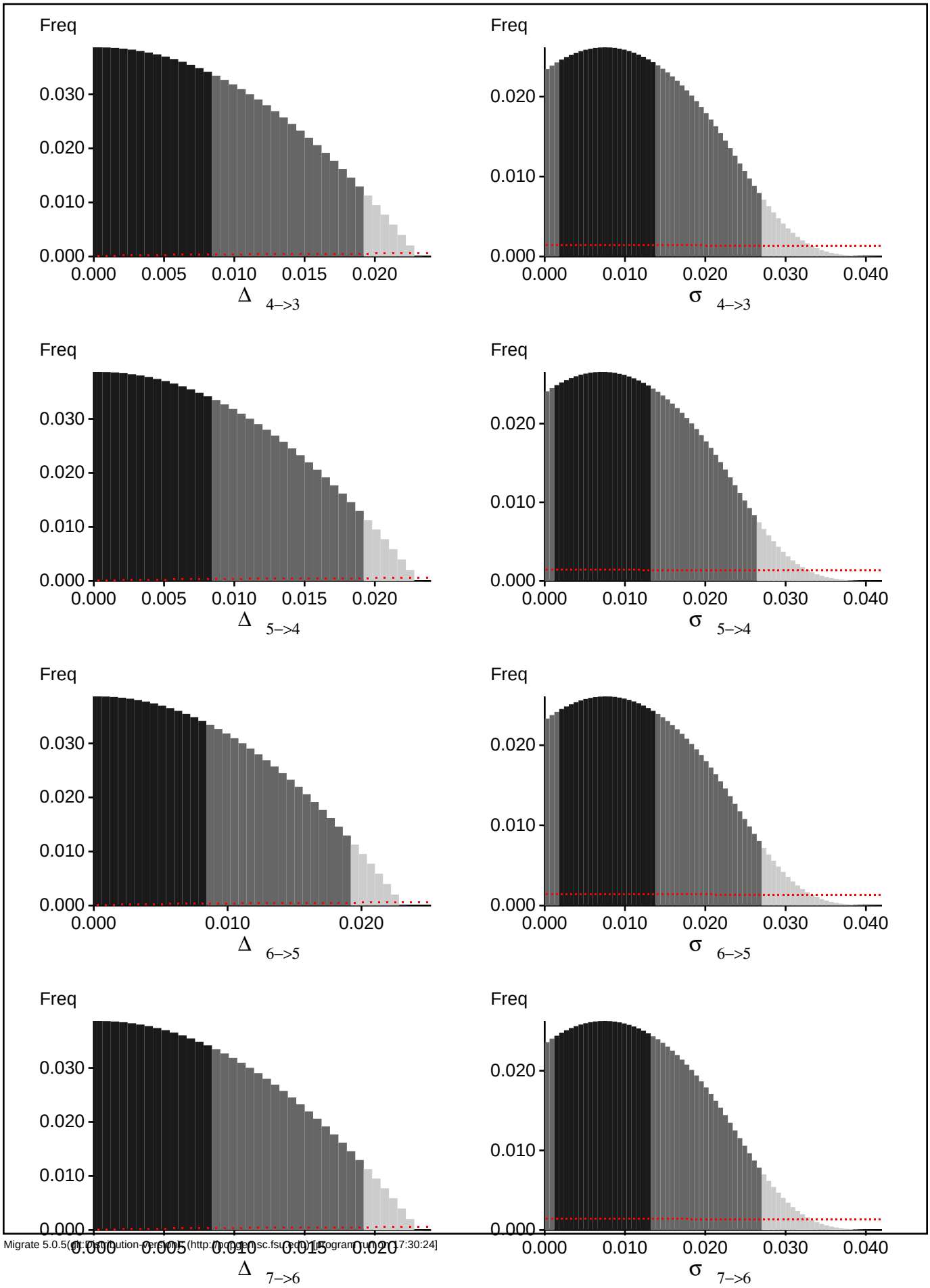
0.000
0.010
0.020
0.030
0.040
σ 3–>2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0.000 0.005 0.010 0.015 0.020
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Freq
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0.000
0.000 0.010 0.020 0.030 0.040
σ 4–>3
Freq
0.030
0.020
0.010
0.000
0.000 0.005 0.010 0.015 0.020
Δ 5–>4
Freq
0.020
0.010
0.000
0.000 0.010 0.020 0.030 0.040
σ 5–>4
Freq
0.030
0.020
0.010
0.000
0.000 0.010 0.020
Δ 6–>5
Freq
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0.010
0.000
0.000 0.010 0.020 0.030 0.040
σ 6–>5
Freq
0.030
0.020
0.010
0.000
0.000 0.005 0.010 0.015 0.020
Δ 7–>6
Freq
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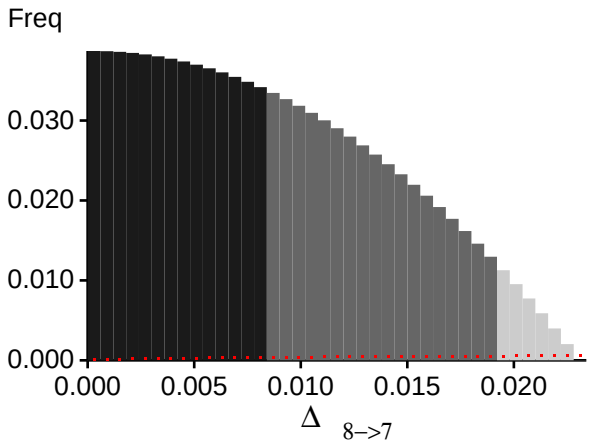
0.010
0.000
0.000 0.010 0.020 0.030 0.040
σ 7–>6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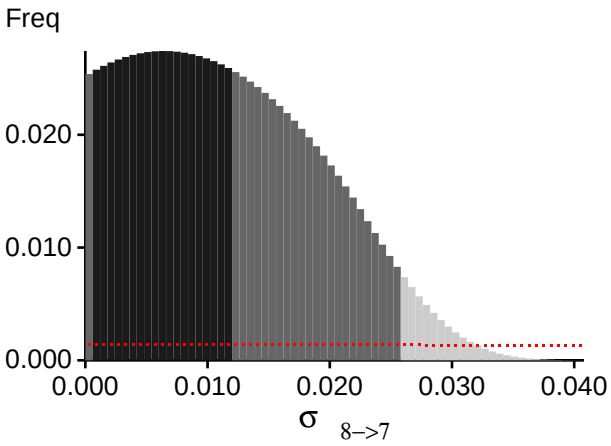
0.015
0.020
Δ 8–>7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0.010
0.020
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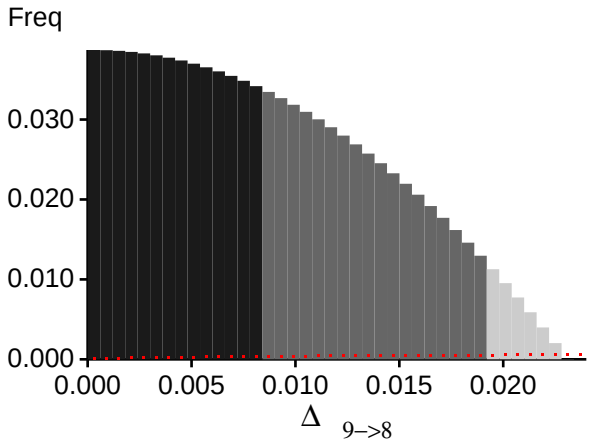
0.040
σ 8–>7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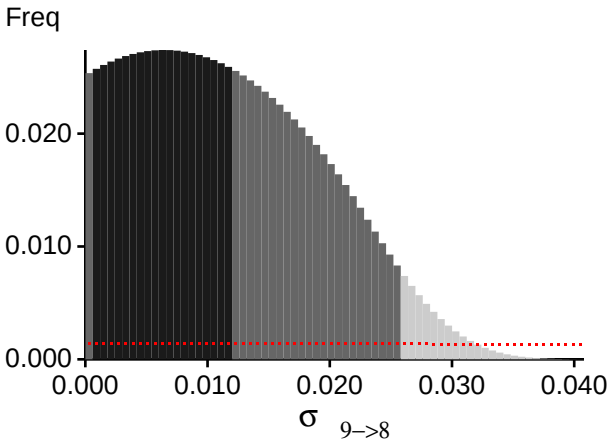
0.015
0.020
Δ 9–>8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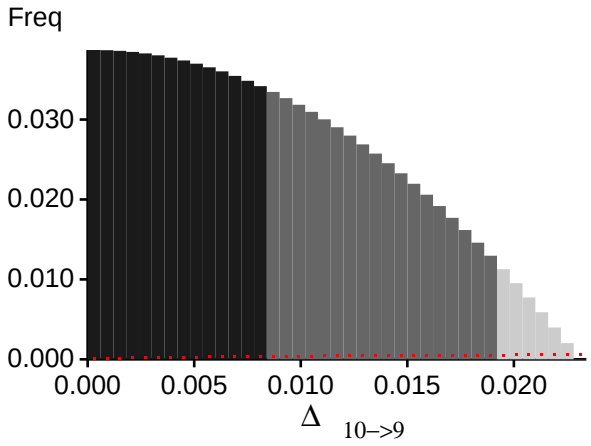
0.010
0.020
0.030
0.040
σ 9–>8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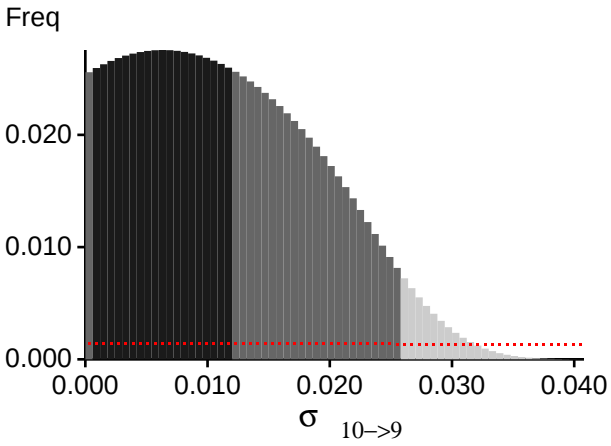
0.005
0.010
0.015
0.020
Δ 10–>9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0.000
0.000
0.010
0.020
0.030
0.040
σ 10–>9

Log-Probability of the data given the model (marginal likelihood)

Use this value for Bayes factor calculations:
BF = Exp[ln(Prob(D | thisModel) - ln(Prob(D | otherModel)
or as LBF = 2 (ln(Prob(D | thisModel) - ln(Prob(D | otherModel))
shows the support for thisModel]

Locus	TI(1a)	BTI(1b)	HS(3)
1	-5482.55	-3802.68	-3568.27
2	-8040.64	-4979.26	-4680.55
3	-7039.44	-4413.92	-3924.32
4	-9509.03	-5697.50	-3992.86
5	-7891.91	-5413.77	-5314.07
6	-7633.66	-4875.87	-4872.54
7	-9836.00	-6296.05	-5596.71
8	-9659.01	-6203.16	-4958.03
9	-8684.26	-5360.69	-4769.53
10	-10727.71	-6525.63	-5568.44
All	-83938.74	-53003.04	-46679.84

(1a) TI: Thermodynamic integration: log(Prob(D|Model)): Good approximation with many temperatures
(1b) BTI: Bezier-approximated Thermodynamic integration: when using few temperatures USE THIS!
(2) SS: Steppingstone Sampling (Xie et al 2011)
(3) HS: Harmonic mean approximation: Overestimates the marginal likelihood, poor variance
[Scaling factor = 565.472297]
Citation suggestions:
Beerli P. and M. Palczewski, 2010. Unified framework to evaluate panmixia and migration direction among multiple sampling locations, Genetics, 185: 313-326.
Palczewski M. and P. Beerli, 2014. Population model comparison using multi-locus datasets. In M.-H. Chen, L. Kuo, and P. O. Lewis, editors, Bayesian Phylogenetics: Methods, Algorithms, and Applications, pages 187-200. CRC Press, 2014.
Xie W., P. O. Lewis, Y. Fan, L. Kuo, and M.-H. Chen. 2011. Improving marginal likelihood estimation for Bayesian phylogenetic model selection. Systematic Biology, 60(2):150â 160, 2011.

Acceptance ratios for all parameters and the genealogies

Parameter	Accepted changes	Ratio
Θ_1	85740/178536	0.48024
Θ_2	102667/177889	0.57714
Θ_3	107951/178859	0.60355
Θ_4	108773/178628	0.60894
Θ_5	87514/179526	0.48747
Θ_6	113326/178755	0.63397
Θ_7	107720/178739	0.60267
Θ_8	87170/178071	0.48952
Θ_9	104876/179224	0.58517
Θ_{10}	151705/179212	0.84651
$\Delta_{2->1}$	39497/178889	0.22079
$\sigma_{2->1}$	52559/178535	0.29439
$\Delta_{3->2}$	6593/177980	0.03704
$\sigma_{3->2}$	11195/177994	0.06290
$\Delta_{4->3}$	3246/177959	0.01824
$\sigma_{4->3}$	9563/178433	0.05359
$\Delta_{5->4}$	868/178463	0.00486
$\sigma_{5->4}$	4244/178419	0.02379
$\Delta_{6->5}$	5900/178771	0.03300
$\sigma_{6->5}$	11780/178800	0.06588
$\Delta_{7->6}$	2241/179160	0.01251
$\sigma_{7->6}$	6453/177656	0.03632
$\Delta_{8->7}$	654/178426	0.00367
$\sigma_{8->7}$	2941/178397	0.01649
$\Delta_{9->8}$	631/178051	0.00354
$\sigma_{9->8}$	2888/178699	0.01616
$\Delta_{10->9}$	443/178756	0.00248
$\sigma_{10->9}$	1969/178934	0.01100
Genealogies	629726/5000239	0.12594

MCMC-Autocorrelation and Effective MCMC Sample Size

Parameter	Autocorrelation	Effective Sampe Size
Θ_1	0.89289	9052.47
Θ_2	0.91338	8326.88
Θ_3	0.93011	6147.67
Θ_4	0.92952	5700.24
Θ_5	0.84307	14018.98
Θ_6	0.92501	6684.46
Θ_7	0.92035	6638.17
Θ_8	0.87693	10862.94
Θ_9	0.90742	8671.97
Θ_{10}	0.93905	5055.63
$\Delta_{2->1}$	0.70964	29221.10
$\sigma_{2->1}$	0.72733	27120.01
$\Delta_{3->2}$	0.79214	19372.01
$\sigma_{3->2}$	0.75230	29062.63
$\Delta_{4->3}$	0.89414	9450.15
$\sigma_{4->3}$	0.86032	12466.58
$\Delta_{5->4}$	0.96448	3754.34
$\sigma_{5->4}$	0.91168	7804.23
$\Delta_{6->5}$	0.89385	9255.69
$\sigma_{6->5}$	0.86564	12470.29
$\Delta_{7->6}$	0.91892	6218.94
$\sigma_{7->6}$	0.88733	9622.37
$\Delta_{8->7}$	0.96270	3542.18
$\sigma_{8->7}$	0.94492	4882.73
$\Delta_{9->8}$	0.97413	1991.38
$\sigma_{9->8}$	0.94293	4521.48
$\Delta_{10->9}$	0.94929	3757.99
$\sigma_{10->9}$	0.93771	6361.66
Genealogies	0.89289	9052.47

Average temperatures during the run

Chain	Temperatures
1	0.00000
2	0.00000
3	0.00000
4	0.00000

Adaptive heating often fails, if the average temperatures are very close together try to rerun using static heating! If you want to compare models using marginal likelihoods then you MUST use static heating

Potential Problems

This section reports potential problems with your run, but such reporting is often not very accurate. Whith many parameters in a multilocus analysi s, it is very common that some parameters for some loci will not be very informative, triggering suggestions (for example to increase the prior ran ge) that are not sensible. This suggestion tool will improve with time, therefore do not blindly follow its suggestions. If some parameters are fla gged, inspect the tables carefully and judge wether an action is required. For example, if you run a Bayesian inference with sequence data, for mac roscopic species there is rarely the need to increase the prior for Theta beyond 0.1; but if you use microsatellites it is rather common that your prior distribution for Theta should have a range from 0.0 to 100 or more. With many populations (>3) it is also very common that some migration rou tes are estimated poorly because the data contains little or no information for that route. Increasing the range will not help in such situations, reducing number of parameters may help in such situations.

No warning was recorded during the run