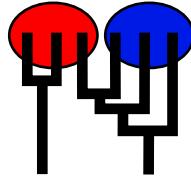


File MSA_scul.dat converted from MSAnalyzer

MIGRATION RATE AND POPULATION SIZE ESTIMATION
 using the coalescent and maximum likelihood or Bayesian inference
 Migrate-n version 3.6.11 [June-18-15]
 Program started at Mon Dec 19 16:34:57 2016
 Program finished at Mon Dec 19 21:31:29 2016



Options

Datatype: Microsatellite data [Singlestep model]
 Missing data: not included

Inheritance scalers in use for Thetas:

All loci use an inheritance scaler of 1.0

[The locus with a scaler of 1.0 used as reference]

Random number seed: (with internal timer) 2104376768

Start parameters:

Theta values were generated from the FST-calculation

M values were generated from the FST-calculation

Connection type matrix:

where m = average (average over a group of Thetas or M,

s = symmetric M, S = symmetric 4Nm, 0 = zero, and not estimated,

* = free to vary, Thetas are on diagonal

Population	1	2	3	4	5	6	7	8	9
1 Barber	*	*	*	*	*	*	*	*	*
2 Grand	*	*	*	*	*	*	*	*	*
3 ISN	*	*	*	*	*	*	*	*	*
4 ISS	*	*	*	*	*	*	*	*	*
5 mallets	*	*	*	*	*	*	*	*	*
6 shelburn	*	*	*	*	*	*	*	*	*
7 Sunset	*	*	*	*	*	*	*	*	*
8 Fairhave	*	*	*	*	*	*	*	*	*
9 Hamilton	*	*	*	*	*	*	*	*	*

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	M $2 \rightarrow 1$	<displayed>
11	M $3 \rightarrow 1$	<displayed>
12	M $4 \rightarrow 1$	<displayed>
13	M $5 \rightarrow 1$	<displayed>
14	M $6 \rightarrow 1$	<displayed>
15	M $7 \rightarrow 1$	<displayed>
16	M $8 \rightarrow 1$	<displayed>
17	M $9 \rightarrow 1$	<displayed>
18	M $1 \rightarrow 2$	<displayed>
19	M $3 \rightarrow 2$	<displayed>
20	M $4 \rightarrow 2$	<displayed>
21	M $5 \rightarrow 2$	<displayed>
22	M $6 \rightarrow 2$	<displayed>
23	M $7 \rightarrow 2$	<displayed>
24	M $8 \rightarrow 2$	<displayed>
25	M $9 \rightarrow 2$	<displayed>
26	M $1 \rightarrow 3$	<displayed>
27	M $2 \rightarrow 3$	<displayed>
28	M $4 \rightarrow 3$	<displayed>
29	M $5 \rightarrow 3$	<displayed>
30	M $6 \rightarrow 3$	<displayed>
31	M $7 \rightarrow 3$	<displayed>
32	M $8 \rightarrow 3$	<displayed>
33	M $9 \rightarrow 3$	<displayed>
34	M $1 \rightarrow 4$	<displayed>
35	M $2 \rightarrow 4$	<displayed>
36	M $3 \rightarrow 4$	<displayed>
37	M $5 \rightarrow 4$	<displayed>
38	M $6 \rightarrow 4$	<displayed>
39	M $7 \rightarrow 4$	<displayed>
40	M $8 \rightarrow 4$	<displayed>
41	M $9 \rightarrow 4$	<displayed>
42	M $1 \rightarrow 5$	<displayed>
43	M $2 \rightarrow 5$	<displayed>

44	M 3->5	<displayed>
45	M 4->5	<displayed>
46	M 6->5	<displayed>
47	M 7->5	<displayed>
48	M 8->5	<displayed>
49	M 9->5	<displayed>
50	M 1->6	<displayed>
51	M 2->6	<displayed>
52	M 3->6	<displayed>
53	M 4->6	<displayed>
54	M 5->6	<displayed>
55	M 7->6	<displayed>
56	M 8->6	<displayed>
57	M 9->6	<displayed>
58	M 1->7	<displayed>
59	M 2->7	<displayed>
60	M 3->7	<displayed>
61	M 4->7	<displayed>
62	M 5->7	<displayed>
63	M 6->7	<displayed>
64	M 8->7	<displayed>
65	M 9->7	<displayed>
66	M 1->8	<displayed>
67	M 2->8	<displayed>
68	M 3->8	<displayed>
69	M 4->8	<displayed>
70	M 5->8	<displayed>
71	M 6->8	<displayed>
72	M 7->8	<displayed>
73	M 9->8	<displayed>
74	M 1->9	<displayed>
75	M 2->9	<displayed>
76	M 3->9	<displayed>
77	M 4->9	<displayed>
78	M 5->9	<displayed>
79	M 6->9	<displayed>
80	M 7->9	<displayed>
81	M 8->9	<displayed>

Mutation rate among loci:

Mutation rate is constant for all loci

Analysis strategy:

Bayesian inference

Proposal distributions for parameter

Parameter	Proposal					
Theta	Metropolis sampling					
M	Metropolis sampling					
Prior distribution for parameter						
Parameter	Prior	Minimum	Mean*	Maximum	Delta	Bins
Theta	Uniform	0.000000	0.010000	0.100000	0.010000	1500
M	Uniform	0.000000	100.000000	1000.000000	100.000000	1500
Markov chain settings:						
Number of chains						1
Recorded steps [a]						5000
Increment (record every x step [b])						100
Number of concurrent chains (replicates) [c]						1
Visited (sampled) parameter values [a*b*c]						500000
Number of discard trees per chain (burn-in)						10000
Print options:						
Data file:	/Users/peucleide/Dropbox/Genetics/Sculpin_analysis/Ontario_Data/MIGRATE/infile_scul.dat.migrate					
Output file:						outfile
Posterior distribution raw histogram file:						bayesfile
Print data:						No
Print genealogies [only some for some data type]:						None

Data summary

Datatype:	Microsatellite data [Data was used as repeat-length information]		
Number of loci:	9		
Population	Locus	Gene copies data	Gene copies (missing)
1 Barber	1	60	(0)
	2	60	(0)
	3	56	(4)
	4	60	(0)
	5	60	(0)
	6	60	(0)
	7	58	(2)
	8	58	(2)
	9	58	(2)
2 Grand	1	54	(6)
	2	52	(8)
	3	50	(10)
	4	54	(6)
	5	54	(6)
	6	60	(0)
	7	60	(0)
	8	60	(0)
	9	60	(0)
3 ISN	1	62	(0)
	2	62	(0)
	3	58	(4)
	4	62	(0)
	5	62	(0)
	6	58	(4)
	7	60	(2)
	8	60	(2)
	9	58	(4)
4 ISS	1	62	(0)
	2	60	(2)
	3	60	(2)
	4	62	(0)
	5	60	(2)
	6	60	(2)
	7	60	(2)

	8	60	(2)
	9	60	(2)
5 mallets	1	34	(2)
	2	34	(2)
	3	30	(6)
	4	34	(2)
	5	30	(6)
	6	36	(0)
	7	34	(2)
	8	34	(2)
	9	34	(2)
6 shelburn	1	60	(0)
	2	60	(0)
	3	52	(8)
	4	60	(0)
	5	60	(0)
	6	60	(0)
	7	58	(2)
	8	58	(2)
	9	58	(2)
7 Sunset	1	60	(0)
	2	52	(8)
	3	52	(8)
	4	60	(0)
	5	52	(8)
	6	60	(0)
	7	56	(4)
	8	60	(0)
	9	56	(4)
8 Fairhave	1	48	(0)
	2	44	(4)
	3	48	(0)
	4	48	(0)
	5	48	(0)
	6	48	(0)
	7	48	(0)
	8	48	(0)
	9	48	(0)
9 Hamilton	1	48	(0)
	2	48	(0)
	3	48	(0)
	4	48	(0)
	5	48	(0)
	6	48	(0)
	7	48	(0)

	8	44	(4)
	9	46	(2)
Total of all populations	1	488	(8)
	2	472	(24)
	3	454	(42)
	4	488	(8)
	5	474	(22)
	6	490	(6)
	7	482	(14)
	8	482	(14)
	9	478	(18)

Bayesian Analysis: Posterior distribution table

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
1	Θ_1	0.05967	0.08633	0.09803	0.09967	0.10000	0.08683	0.08409
1	Θ_2	0.05527	0.08500	0.09343	0.09793	0.09933	0.08390	0.08218
1	Θ_3	0.05620	0.09660	0.09863	0.10000	0.10000	0.08157	0.07730
1	Θ_4	0.04387	0.07933	0.09850	0.09987	0.10000	0.07470	0.07244
1	Θ_5	0.04973	0.06573	0.07710	0.08000	0.09987	0.07557	0.07499
1	Θ_6	0.05460	0.08767	0.09630	0.09920	0.10000	0.08337	0.08161
1	Θ_7	0.04580	0.08000	0.08350	0.09800	0.09980	0.07817	0.07566
1	Θ_8	0.00200	0.00347	0.00497	0.00660	0.01373	0.00603	0.00805
1	Θ_9	0.00207	0.00347	0.00470	0.00607	0.01033	0.00537	0.00572
1	$M_{2->1}$	10.000	40.667	57.667	74.667	100.000	57.667	56.587
1	$M_{3->1}$	40.667	66.667	83.667	109.333	151.333	93.667	95.216
1	$M_{4->1}$	192.000	214.000	233.000	258.667	438.667	321.667	316.294
1	$M_{5->1}$	45.333	122.000	150.333	202.000	282.667	163.667	165.769
1	$M_{6->1}$	34.000	48.000	76.333	108.000	262.000	113.667	135.115
1	$M_{7->1}$	2.667	30.000	60.333	86.667	159.333	70.333	76.501
1	$M_{8->1}$	80.667	111.333	133.667	168.667	260.667	151.667	158.967
1	$M_{9->1}$	47.333	75.333	96.333	122.000	170.000	105.000	106.595
1	$M_{1->2}$	91.333	98.667	133.667	208.667	232.667	312.333	328.197
1	$M_{3->2}$	136.667	170.667	204.333	226.000	438.667	289.667	286.429
1	$M_{4->2}$	6.667	75.333	93.667	144.667	250.000	115.000	120.669
1	$M_{5->2}$	129.333	155.333	197.000	276.000	380.000	261.000	302.699
1	$M_{6->2}$	0.000	1.333	11.000	19.333	53.333	17.667	17.929
1	$M_{7->2}$	0.000	10.667	21.667	32.000	49.333	125.667	114.342
1	$M_{8->2}$	0.667	8.667	24.333	40.667	154.000	76.333	74.588
1	$M_{9->2}$	92.667	137.333	171.000	192.000	242.667	166.333	166.760
1	$M_{1->3}$	0.000	5.333	23.000	58.667	78.667	171.000	170.686
1	$M_{2->3}$	42.000	118.667	156.333	179.333	322.667	161.000	185.834
1	$M_{4->3}$	0.000	12.667	29.667	44.000	74.667	35.000	33.944
1	$M_{5->3}$	8.000	30.667	49.667	62.000	88.000	48.333	48.360
1	$M_{6->3}$	416.667	494.667	513.667	603.333	674.000	535.000	525.566
1	$M_{7->3}$	0.000	5.333	18.333	32.000	81.333	27.667	30.176
1	$M_{8->3}$	0.000	8.000	18.333	28.667	49.333	22.333	21.364
1	$M_{9->3}$	122.667	133.333	159.667	206.667	264.000	276.333	275.983
1	$M_{1->4}$	218.667	268.667	356.333	384.667	518.000	353.000	359.188
1	$M_{2->4}$	0.000	0.000	7.000	76.667	195.333	95.000	115.683
1	$M_{3->4}$	44.667	129.333	156.333	199.333	241.333	156.333	152.497

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
1	M _{5->4}	102.667	179.333	212.333	265.333	369.333	226.333	230.700
1	M _{6->4}	4.000	26.667	43.667	68.667	134.000	57.667	62.888
1	M _{7->4}	602.000	676.000	719.000	752.667	982.667	769.000	773.409
1	M _{8->4}	0.000	0.000	1.000	40.000	126.667	40.333	49.503
1	M _{9->4}	14.667	28.667	52.333	81.333	252.000	115.000	121.403
1	M _{1->5}	57.333	77.333	97.667	150.667	257.333	139.000	148.301
1	M _{2->5}	0.000	14.000	25.000	36.667	56.667	28.333	28.064
1	M _{3->5}	220.000	306.000	372.333	410.000	528.000	367.000	371.837
1	M _{4->5}	52.667	81.333	123.667	158.667	362.000	174.333	188.812
1	M _{6->5}	98.000	135.333	151.000	198.000	272.667	180.333	182.000
1	M _{7->5}	4.667	19.333	31.667	57.333	102.000	48.333	50.629
1	M _{8->5}	20.000	43.333	77.667	105.333	194.000	91.000	98.991
1	M _{9->5}	0.000	12.667	20.333	39.333	106.000	50.333	49.732
1	M _{1->6}	17.333	43.333	62.333	83.333	122.000	68.333	68.960
1	M _{2->6}	0.000	2.000	13.667	24.000	70.000	22.333	23.596
1	M _{3->6}	183.333	223.333	251.667	278.000	358.667	253.667	252.493
1	M _{4->6}	26.667	46.667	61.000	77.333	114.000	66.333	67.887
1	M _{5->6}	0.000	0.000	16.333	36.000	156.667	47.000	56.278
1	M _{7->6}	0.000	18.000	31.000	57.333	112.000	47.000	50.897
1	M _{8->6}	10.000	26.000	42.333	60.667	116.000	51.667	57.105
1	M _{9->6}	8.667	26.667	37.000	51.333	97.333	52.333	52.698
1	M _{1->7}	118.667	217.333	255.667	280.000	312.000	203.000	182.189
1	M _{2->7}	262.000	317.333	361.000	428.000	560.667	394.333	431.568
1	M _{3->7}	71.333	104.667	156.333	202.667	370.667	181.000	201.473
1	M _{4->7}	6.667	34.667	53.000	85.333	143.333	69.667	72.036
1	M _{5->7}	81.333	100.667	135.000	171.333	231.333	185.000	225.528
1	M _{6->7}	0.000	0.000	0.333	45.333	154.000	45.667	60.250
1	M _{8->7}	22.000	32.000	53.667	99.333	136.667	260.333	247.410
1	M _{9->7}	116.667	137.333	183.667	247.333	481.333	236.333	279.370
1	M _{1->8}	0.000	0.000	15.000	35.333	129.333	35.667	47.825
1	M _{2->8}	37.333	61.333	99.000	146.667	353.333	137.667	168.834
1	M _{3->8}	32.667	63.333	83.667	137.333	278.000	125.000	138.031
1	M _{4->8}	1.333	18.000	41.667	85.333	183.333	74.333	85.832
1	M _{5->8}	25.333	34.000	58.333	171.333	449.333	197.667	220.477
1	M _{6->8}	59.333	166.667	199.000	249.333	440.667	213.667	224.323
1	M _{7->8}	0.000	24.000	45.000	68.000	135.333	53.667	58.312
1	M _{9->8}	189.333	289.333	321.000	358.000	429.333	421.000	425.759
1	M _{1->9}	41.333	75.333	94.333	127.333	240.667	113.000	126.914
1	M _{2->9}	305.333	372.000	444.333	477.333	638.667	446.333	459.425
1	M _{3->9}	102.000	165.333	194.333	229.333	274.667	194.333	191.555
1	M _{4->9}	30.667	60.000	95.000	144.667	272.667	127.000	139.069

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
1	$M_{5 \rightarrow 9}$	146.000	232.667	300.333	331.333	456.667	305.000	306.784
1	$M_{6 \rightarrow 9}$	14.000	108.667	139.667	158.667	200.667	117.000	112.731
1	$M_{7 \rightarrow 9}$	62.667	102.667	139.667	175.333	284.667	153.667	163.483
1	$M_{8 \rightarrow 9}$	70.667	156.667	215.667	234.000	288.000	179.667	179.530
2	Θ_1	0.05460	0.08673	0.09477	0.09767	0.09960	0.07510	0.07190
2	Θ_2	0.05893	0.08893	0.09810	0.09987	0.10000	0.08243	0.07848
2	Θ_3	0.05800	0.08700	0.09837	0.10000	0.10000	0.08717	0.08154
2	Θ_4	0.06373	0.08773	0.09823	0.10000	0.10000	0.08790	0.08443
2	Θ_5	0.06513	0.08713	0.09377	0.09693	0.09913	0.08397	0.08294
2	Θ_6	0.06460	0.08720	0.09630	0.09787	0.10000	0.08697	0.08588
2	Θ_7	0.06547	0.08727	0.09537	0.09753	0.09933	0.08703	0.08608
2	Θ_8	0.05273	0.06833	0.07063	0.07980	0.10000	0.07417	0.07346
2	Θ_9	0.01887	0.06060	0.06777	0.07107	0.08900	0.05563	0.05583
2	$M_{2 \rightarrow 1}$	10.000	31.333	59.000	87.333	218.667	77.667	93.265
2	$M_{3 \rightarrow 1}$	0.000	0.000	0.333	9.333	30.000	9.667	9.707
2	$M_{4 \rightarrow 1}$	9.333	29.333	42.333	54.667	82.000	45.000	45.178
2	$M_{5 \rightarrow 1}$	59.333	100.667	133.000	166.000	260.000	141.667	150.278
2	$M_{6 \rightarrow 1}$	74.000	82.667	115.000	164.000	456.000	203.000	237.727
2	$M_{7 \rightarrow 1}$	0.000	15.333	27.667	40.000	76.667	32.333	34.841
2	$M_{8 \rightarrow 1}$	7.333	25.333	37.667	53.333	94.000	44.333	46.848
2	$M_{9 \rightarrow 1}$	58.667	107.333	149.000	164.000	194.000	129.667	128.050
2	$M_{1 \rightarrow 2}$	64.000	89.333	109.000	126.000	170.000	111.667	113.444
2	$M_{3 \rightarrow 2}$	42.667	97.333	115.667	151.333	212.667	127.000	129.727
2	$M_{4 \rightarrow 2}$	0.000	3.333	13.667	22.667	48.667	19.667	19.162
2	$M_{5 \rightarrow 2}$	89.333	104.667	131.000	154.000	328.000	188.333	199.084
2	$M_{6 \rightarrow 2}$	0.000	4.000	11.667	18.000	32.000	14.333	11.918
2	$M_{7 \rightarrow 2}$	35.333	56.667	90.333	130.667	276.667	117.000	135.729
2	$M_{8 \rightarrow 2}$	0.000	4.000	11.667	18.667	33.333	15.000	12.847
2	$M_{9 \rightarrow 2}$	22.667	80.000	110.333	139.333	179.333	106.333	103.537
2	$M_{1 \rightarrow 3}$	0.000	0.000	0.333	6.000	18.000	6.333	3.960
2	$M_{2 \rightarrow 3}$	106.667	131.333	147.667	167.333	212.000	153.667	155.475
2	$M_{4 \rightarrow 3}$	122.667	146.000	162.333	200.667	269.333	186.333	190.560
2	$M_{5 \rightarrow 3}$	101.333	146.000	169.667	188.667	221.333	165.667	164.307
2	$M_{6 \rightarrow 3}$	83.333	118.000	133.667	150.667	182.000	135.000	133.997
2	$M_{7 \rightarrow 3}$	3.333	30.667	46.333	62.000	88.667	47.667	47.041
2	$M_{8 \rightarrow 3}$	0.000	18.000	35.000	46.667	62.667	31.667	29.638
2	$M_{9 \rightarrow 3}$	2.667	16.667	31.000	46.000	93.333	39.000	43.108
2	$M_{1 \rightarrow 4}$	32.667	54.667	67.000	78.667	100.000	67.667	67.201
2	$M_{2 \rightarrow 4}$	88.667	112.000	126.333	138.000	167.333	127.667	127.997
2	$M_{3 \rightarrow 4}$	0.667	12.000	23.667	38.000	64.000	31.000	31.652

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
2	M _{5->4}	38.000	55.333	66.333	77.333	99.333	68.333	68.410
2	M _{6->4}	0.000	4.667	13.000	20.000	34.667	15.667	13.294
2	M _{7->4}	61.333	80.000	95.000	107.333	137.333	97.667	97.879
2	M _{8->4}	0.000	0.000	0.333	8.000	20.667	8.333	4.659
2	M _{9->4}	0.000	0.000	0.333	7.333	20.000	7.667	4.258
2	M _{1->5}	0.000	0.000	0.333	10.000	30.667	10.333	10.333
2	M _{2->5}	0.000	4.667	13.000	20.000	35.333	15.667	13.699
2	M _{3->5}	32.667	50.667	64.333	77.333	108.667	67.667	68.794
2	M _{4->5}	26.667	44.000	56.333	70.667	97.333	61.000	61.484
2	M _{6->5}	0.000	14.000	25.000	33.333	46.667	25.000	23.525
2	M _{7->5}	121.333	150.667	170.333	185.333	222.000	170.333	171.576
2	M _{8->5}	2.000	18.667	28.333	38.000	63.333	31.000	31.482
2	M _{9->5}	49.333	68.000	86.333	106.667	149.333	95.000	97.125
2	M _{1->6}	0.667	16.000	27.000	37.333	56.000	29.000	28.323
2	M _{2->6}	2.000	17.333	28.333	38.000	56.000	29.667	29.471
2	M _{3->6}	16.667	32.667	44.333	54.667	77.333	46.333	46.234
2	M _{4->6}	136.000	169.333	189.667	214.667	258.667	196.333	196.634
2	M _{5->6}	2.667	28.000	41.667	55.333	85.333	44.333	43.583
2	M _{7->6}	44.000	67.333	83.667	111.333	153.333	95.667	97.305
2	M _{8->6}	0.000	8.000	19.667	32.000	66.000	26.333	27.719
2	M _{9->6}	0.000	0.000	0.333	8.667	23.333	9.000	6.367
2	M _{1->7}	0.000	11.333	23.000	32.000	49.333	25.000	24.046
2	M _{2->7}	0.000	2.000	9.667	16.667	35.333	14.333	12.106
2	M _{3->7}	76.667	99.333	113.667	129.333	182.667	119.000	122.524
2	M _{4->7}	38.667	56.667	67.000	78.000	97.333	68.333	68.353
2	M _{5->7}	0.667	17.333	27.000	38.000	56.000	29.667	29.170
2	M _{6->7}	12.667	28.667	39.000	48.000	65.333	39.667	39.120
2	M _{8->7}	1.333	55.333	66.333	77.333	92.000	51.667	48.138
2	M _{9->7}	0.000	0.000	3.000	10.667	25.333	11.000	8.239
2	M _{1->8}	13.333	29.333	40.333	50.667	70.667	42.333	42.216
2	M _{2->8}	0.000	0.000	0.333	6.000	17.333	6.333	3.376
2	M _{3->8}	0.000	0.000	0.333	12.000	31.333	12.333	12.594
2	M _{4->8}	0.000	0.000	6.333	12.000	27.333	11.667	8.366
2	M _{5->8}	6.667	22.000	32.333	41.333	58.667	33.667	32.943
2	M _{6->8}	0.000	0.000	0.333	13.333	37.333	13.667	14.679
2	M _{7->8}	0.000	6.000	13.667	21.333	35.333	16.333	14.130
2	M _{9->8}	8.000	34.000	53.000	64.667	89.333	51.000	53.249
2	M _{1->9}	0.000	0.000	8.333	16.667	42.667	17.000	16.680
2	M _{2->9}	0.000	0.000	0.333	18.000	56.667	18.333	23.695
2	M _{3->9}	0.000	8.667	22.333	35.333	135.333	70.333	66.847
2	M _{4->9}	13.333	34.000	46.333	60.667	98.667	51.000	52.604

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
2	$M_{5->9}$	52.000	94.667	118.333	136.667	172.000	115.667	114.932
2	$M_{6->9}$	58.000	113.333	149.667	174.000	215.333	141.000	138.820
2	$M_{7->9}$	113.333	160.000	185.000	219.333	330.000	197.000	206.209
2	$M_{8->9}$	18.000	60.000	77.667	100.667	209.333	107.667	118.974
3	Θ_1	0.03447	0.09433	0.09850	0.10000	0.10000	0.07257	0.06851
3	Θ_2	0.09420	0.09600	0.09837	0.09987	0.10000	0.05723	0.05763
3	Θ_3	0.02793	0.03547	0.04650	0.05080	0.06380	0.05570	0.06065
3	Θ_4	0.05253	0.07880	0.09390	0.09660	0.10000	0.08010	0.07796
3	Θ_5	0.07273	0.08500	0.09857	0.10000	0.10000	0.08517	0.08035
3	Θ_6	0.04660	0.08387	0.08883	0.09847	0.10000	0.07697	0.07445
3	Θ_7	0.05153	0.08260	0.08757	0.09713	0.09960	0.08023	0.07795
3	Θ_8	0.07153	0.08947	0.09590	0.09887	0.10000	0.09043	0.08927
3	Θ_9	0.07453	0.09073	0.09697	0.09887	0.10000	0.09057	0.08951
3	$M_{2->1}$	8.667	29.333	43.667	69.333	122.667	57.667	60.824
3	$M_{3->1}$	478.000	538.667	618.333	670.000	821.333	629.667	641.771
3	$M_{4->1}$	0.000	5.333	21.667	33.333	63.333	27.667	28.297
3	$M_{5->1}$	304.000	408.667	447.667	501.333	589.333	455.000	453.249
3	$M_{6->1}$	379.333	466.667	491.667	552.000	615.333	503.667	502.715
3	$M_{7->1}$	0.000	14.000	25.000	36.667	58.667	29.000	28.979
3	$M_{8->1}$	333.333	399.333	472.333	494.000	581.333	453.667	454.478
3	$M_{9->1}$	31.333	61.333	80.333	101.333	144.667	85.667	86.922
3	$M_{1->2}$	501.333	675.333	719.667	816.667	948.667	727.667	724.115
3	$M_{3->2}$	195.333	272.667	303.000	361.333	530.000	341.667	350.856
3	$M_{4->2}$	719.333	964.000	984.333	995.333	1000.000	890.333	875.354
3	$M_{5->2}$	37.333	114.667	141.667	176.667	342.667	151.667	165.967
3	$M_{6->2}$	748.667	898.000	944.333	990.667	1000.000	907.000	892.898
3	$M_{7->2}$	228.667	320.000	375.000	436.000	552.667	382.333	381.964
3	$M_{8->2}$	499.333	562.667	656.333	697.333	927.333	697.667	700.591
3	$M_{9->2}$	392.667	549.333	647.000	704.667	896.667	625.000	621.714
3	$M_{1->3}$	61.333	80.667	92.333	102.667	122.667	93.000	92.235
3	$M_{2->3}$	16.000	32.667	43.000	52.667	72.000	44.333	44.071
3	$M_{4->3}$	247.333	284.667	307.667	322.667	358.000	303.667	302.669
3	$M_{5->3}$	153.333	182.667	202.333	219.333	284.667	207.000	211.213
3	$M_{6->3}$	59.333	73.333	86.333	98.667	174.667	115.667	115.965
3	$M_{7->3}$	0.000	2.667	9.000	15.333	26.667	12.333	9.214
3	$M_{8->3}$	94.000	116.667	129.000	143.333	167.333	131.000	130.809
3	$M_{9->3}$	0.000	12.000	20.333	28.667	40.667	21.667	20.744
3	$M_{1->4}$	132.667	164.000	179.667	202.000	252.667	187.000	189.252
3	$M_{2->4}$	178.000	219.333	250.333	264.000	302.000	241.000	239.617
3	$M_{3->4}$	103.333	134.667	157.667	176.000	212.000	157.667	157.861

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
3	M _{5->4}	0.000	12.000	21.000	29.333	44.000	23.000	22.140
3	M _{6->4}	42.667	64.000	77.000	92.000	118.000	80.333	80.453
3	M _{7->4}	317.333	380.000	419.000	434.667	477.333	405.667	402.473
3	M _{8->4}	112.667	138.000	155.000	174.000	228.000	161.667	164.868
3	M _{9->4}	28.000	84.000	97.667	109.333	132.667	82.333	80.971
3	M _{1->5}	0.000	0.667	7.667	14.000	29.333	13.000	11.130
3	M _{2->5}	42.000	63.333	75.000	85.333	104.667	75.000	74.050
3	M _{3->5}	58.667	76.667	88.333	98.667	120.667	89.667	89.698
3	M _{4->5}	10.667	24.667	33.667	42.000	56.667	34.333	33.765
3	M _{6->5}	0.000	13.333	23.667	32.000	47.333	25.000	24.087
3	M _{7->5}	0.000	5.333	12.333	19.333	30.000	15.000	12.657
3	M _{8->5}	350.000	381.333	398.333	414.667	446.000	399.000	398.710
3	M _{9->5}	172.667	202.667	218.333	236.000	261.333	219.000	218.213
3	M _{1->6}	0.000	0.000	5.667	12.667	30.667	13.000	11.113
3	M _{2->6}	0.000	0.000	0.333	7.333	22.667	7.667	6.224
3	M _{3->6}	178.667	218.667	241.000	266.667	311.333	245.000	245.476
3	M _{4->6}	16.667	36.000	48.333	60.667	83.333	50.333	50.263
3	M _{5->6}	334.667	397.333	417.667	458.000	520.667	427.000	426.286
3	M _{7->6}	7.333	26.000	37.667	49.333	76.667	40.333	41.607
3	M _{8->6}	92.000	140.000	185.000	212.667	277.333	179.000	180.918
3	M _{9->6}	108.000	130.667	151.000	175.333	240.000	163.000	167.579
3	M _{1->7}	224.000	350.000	383.667	460.000	544.000	396.333	393.782
3	M _{2->7}	140.000	177.333	201.667	227.333	311.333	210.333	216.931
3	M _{3->7}	132.667	209.333	253.000	281.333	318.667	235.667	230.969
3	M _{4->7}	26.667	46.000	60.333	74.667	107.333	64.333	65.143
3	M _{5->7}	110.667	171.333	205.667	227.333	266.667	195.000	191.577
3	M _{6->7}	38.000	62.000	77.000	109.333	162.000	94.333	96.795
3	M _{8->7}	76.000	94.667	131.000	150.000	284.000	167.667	172.454
3	M _{9->7}	78.667	118.000	137.000	160.000	232.000	144.333	149.102
3	M _{1->8}	33.333	50.000	60.333	70.000	90.000	61.667	61.930
3	M _{2->8}	43.333	62.667	73.667	83.333	101.333	73.667	72.759
3	M _{3->8}	6.667	19.333	27.667	36.000	48.667	28.333	28.004
3	M _{4->8}	150.667	175.333	190.333	204.667	232.000	191.667	191.182
3	M _{5->8}	191.333	216.667	231.667	244.667	272.667	232.333	232.037
3	M _{6->8}	16.000	30.000	39.000	47.333	61.333	39.667	38.981
3	M _{7->8}	113.333	136.667	149.667	164.667	192.000	152.333	152.736
3	M _{9->8}	58.000	75.333	85.667	95.333	113.333	86.333	85.969
3	M _{1->9}	0.000	6.667	14.333	21.333	32.000	16.333	14.088
3	M _{2->9}	0.667	12.667	21.667	29.333	42.000	23.000	22.074
3	M _{3->9}	78.667	133.333	143.667	153.333	168.667	125.000	124.214
3	M _{4->9}	31.333	46.000	55.667	64.000	79.333	56.333	55.831

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
3	$M_{5 \rightarrow 9}$	46.667	62.000	72.333	81.333	99.333	73.000	72.666
3	$M_{6 \rightarrow 9}$	4.000	16.667	25.000	32.667	44.667	25.667	24.971
3	$M_{7 \rightarrow 9}$	16.000	30.000	39.000	47.333	62.000	39.667	39.301
3	$M_{8 \rightarrow 9}$	26.667	42.667	52.333	62.000	80.000	53.667	53.022
4	Θ_1	0.04567	0.09607	0.09857	0.10000	0.10000	0.06337	0.06043
4	Θ_2	0.03420	0.06427	0.06783	0.06993	0.09800	0.06343	0.06277
4	Θ_3	0.05140	0.08353	0.08997	0.09727	0.09900	0.07837	0.07774
4	Θ_4	0.05207	0.09480	0.09623	0.09720	0.09867	0.07490	0.07391
4	Θ_5	0.01893	0.05447	0.05930	0.06713	0.09760	0.05717	0.05770
4	Θ_6	0.00173	0.00753	0.00983	0.01393	0.03653	0.01223	0.01824
4	Θ_7	0.00500	0.00527	0.00730	0.00927	0.00973	0.04997	0.04940
4	Θ_8	0.03140	0.05067	0.06077	0.06253	0.09740	0.06257	0.06343
4	Θ_9	0.03493	0.03600	0.03830	0.04680	0.07553	0.05603	0.05850
4	$M_{2 \rightarrow 1}$	0.000	0.000	0.333	54.667	240.000	55.000	146.928
4	$M_{3 \rightarrow 1}$	387.333	881.333	953.667	985.333	995.333	691.667	712.766
4	$M_{4 \rightarrow 1}$	529.333	833.333	959.667	991.333	1000.000	841.667	806.757
4	$M_{5 \rightarrow 1}$	150.667	229.333	253.667	360.667	543.333	507.000	581.290
4	$M_{6 \rightarrow 1}$	561.333	838.667	966.333	987.333	1000.000	840.333	807.397
4	$M_{7 \rightarrow 1}$	298.000	780.667	897.000	929.333	990.000	658.333	646.987
4	$M_{8 \rightarrow 1}$	106.667	114.667	135.000	252.667	796.000	487.000	484.526
4	$M_{9 \rightarrow 1}$	267.333	304.667	383.667	512.667	974.667	525.667	558.363
4	$M_{1 \rightarrow 2}$	216.000	258.000	287.000	340.000	861.333	519.000	523.398
4	$M_{3 \rightarrow 2}$	152.000	235.333	295.000	330.667	444.667	622.333	577.203
4	$M_{4 \rightarrow 2}$	126.667	336.000	391.000	503.333	758.000	423.667	434.043
4	$M_{5 \rightarrow 2}$	0.000	15.333	45.000	100.000	183.333	92.333	149.571
4	$M_{6 \rightarrow 2}$	0.000	0.000	0.333	31.333	78.000	173.000	169.764
4	$M_{7 \rightarrow 2}$	0.000	4.667	21.667	68.667	155.333	65.000	71.510
4	$M_{8 \rightarrow 2}$	286.667	372.667	430.333	589.333	907.333	549.000	575.416
4	$M_{9 \rightarrow 2}$	20.667	45.333	76.333	148.667	389.333	231.667	244.247
4	$M_{1 \rightarrow 3}$	24.000	57.333	83.667	208.667	512.000	189.667	224.834
4	$M_{2 \rightarrow 3}$	138.667	182.000	221.000	310.000	568.000	295.667	382.661
4	$M_{4 \rightarrow 3}$	52.000	72.000	99.667	180.000	432.667	179.667	209.406
4	$M_{5 \rightarrow 3}$	0.000	0.000	7.667	50.000	104.667	206.333	218.514
4	$M_{6 \rightarrow 3}$	54.000	82.000	145.000	206.000	514.000	227.667	265.224
4	$M_{7 \rightarrow 3}$	75.333	129.333	167.667	220.000	399.333	214.333	256.889
4	$M_{8 \rightarrow 3}$	0.000	35.333	57.000	80.000	133.333	63.000	66.092
4	$M_{9 \rightarrow 3}$	70.000	154.000	183.000	202.000	374.000	210.333	218.499
4	$M_{1 \rightarrow 4}$	611.333	789.333	820.333	929.333	1000.000	786.333	735.622
4	$M_{2 \rightarrow 4}$	423.333	569.333	603.000	677.333	896.000	654.333	662.394
4	$M_{3 \rightarrow 4}$	8.667	45.333	74.333	130.000	262.667	105.000	118.281

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
4	M _{5->4}	145.333	259.333	359.000	389.333	548.000	329.667	329.864
4	M _{6->4}	7.333	16.667	42.333	191.333	232.000	281.000	351.443
4	M _{7->4}	156.667	180.000	261.000	361.333	711.333	460.333	494.295
4	M _{8->4}	198.667	258.667	317.667	382.000	436.667	588.333	555.880
4	M _{9->4}	40.667	314.667	381.000	440.667	522.000	343.000	313.425
4	M _{1->5}	0.000	0.000	33.667	125.333	288.667	154.333	268.374
4	M _{2->5}	238.000	480.667	524.333	631.333	954.667	544.333	559.279
4	M _{3->5}	272.000	461.333	555.000	630.667	845.333	563.667	579.639
4	M _{4->5}	594.000	795.333	865.667	910.000	1000.000	823.667	808.847
4	M _{6->5}	418.000	592.000	669.000	738.000	914.000	659.000	651.714
4	M _{7->5}	511.333	738.667	787.667	912.667	1000.000	785.667	755.027
4	M _{8->5}	110.667	426.000	516.333	636.667	838.667	497.667	485.550
4	M _{9->5}	214.667	241.333	307.667	412.000	650.000	544.333	561.266
4	M _{1->6}	36.000	51.333	71.667	102.000	191.333	98.333	105.229
4	M _{2->6}	0.000	3.333	16.333	30.667	86.667	27.667	29.986
4	M _{3->6}	0.000	5.333	19.667	36.000	205.333	81.667	90.060
4	M _{4->6}	12.667	23.333	43.000	67.333	174.000	247.000	244.244
4	M _{5->6}	52.000	94.667	145.667	159.333	230.000	135.000	136.388
4	M _{7->6}	0.000	3.333	22.333	48.667	152.667	56.333	86.535
4	M _{8->6}	18.000	32.667	56.333	132.667	252.667	124.333	175.952
4	M _{9->6}	318.000	352.667	494.333	537.333	619.333	553.000	632.837
4	M _{1->7}	8.667	18.000	69.000	127.333	140.667	435.000	468.874
4	M _{2->7}	18.667	143.333	180.333	259.333	584.667	227.667	269.970
4	M _{3->7}	217.333	238.667	353.000	459.333	755.333	460.333	521.688
4	M _{4->7}	266.667	437.333	535.667	612.000	704.667	544.333	593.167
4	M _{5->7}	168.667	398.667	435.667	602.667	810.667	505.667	520.755
4	M _{6->7}	278.000	414.000	501.000	582.000	746.000	513.000	546.167
4	M _{8->7}	0.000	20.000	45.667	76.667	290.000	131.000	135.517
4	M _{9->7}	458.667	968.667	984.333	997.333	1000.000	677.667	656.582
4	M _{1->8}	49.333	186.000	213.667	256.667	403.333	216.333	228.423
4	M _{2->8}	138.667	193.333	343.667	412.000	695.333	384.333	455.053
4	M _{3->8}	0.000	11.333	52.333	132.000	394.000	131.000	203.366
4	M _{4->8}	168.667	320.000	414.333	452.000	681.333	403.000	410.865
4	M _{5->8}	0.000	10.000	19.667	49.333	102.000	41.667	42.940
4	M _{6->8}	48.667	156.000	316.333	361.333	565.333	361.000	425.754
4	M _{7->8}	139.333	262.667	311.000	372.000	776.000	461.000	472.334
4	M _{9->8}	329.333	426.667	460.333	524.667	873.333	559.667	567.985
4	M _{1->9}	50.667	125.333	155.000	198.667	252.667	145.000	135.993
4	M _{2->9}	272.000	318.000	393.667	444.667	770.000	545.667	560.955
4	M _{3->9}	177.333	270.667	348.333	406.000	816.667	473.000	493.676
4	M _{4->9}	0.000	5.333	19.000	43.333	150.667	66.333	67.987

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
4	$M_{5 \rightarrow 9}$	3.333	19.333	33.667	90.000	213.333	80.333	92.525
4	$M_{6 \rightarrow 9}$	538.667	639.333	730.333	837.333	984.000	676.333	610.678
4	$M_{7 \rightarrow 9}$	98.000	141.333	239.667	265.333	426.000	238.333	247.887
4	$M_{8 \rightarrow 9}$	34.000	65.333	99.000	129.333	430.000	219.000	224.885
5	Θ_1	0.00000	0.00000	0.00003	0.00133	0.04580	0.04837	0.04893
5	Θ_2	0.00000	0.00000	0.00003	0.00233	0.04207	0.04883	0.04770
5	Θ_3	0.00000	0.02940	0.03317	0.03540	0.04680	0.04590	0.04719
5	Θ_4	0.04240	0.05200	0.05403	0.05847	0.06267	0.05123	0.05038
5	Θ_5	0.01727	0.02393	0.03137	0.03547	0.04047	0.05030	0.04969
5	Θ_6	0.03900	0.07853	0.08743	0.09687	0.09767	0.05483	0.05440
5	Θ_7	0.07020	0.09667	0.09877	0.10000	0.10000	0.04670	0.04753
5	Θ_8	0.00000	0.00000	0.00003	0.00847	0.07420	0.04463	0.04660
5	Θ_9	0.03713	0.05793	0.06303	0.06480	0.06560	0.04990	0.05012
5	$M_{2 \rightarrow 1}$	957.333	968.000	986.333	1000.000	1000.000	439.000	453.035
5	$M_{3 \rightarrow 1}$	181.333	234.667	261.667	283.333	514.667	489.667	494.942
5	$M_{4 \rightarrow 1}$	824.000	894.667	980.333	994.667	1000.000	511.667	522.146
5	$M_{5 \rightarrow 1}$	232.000	352.667	412.333	460.000	864.000	503.000	514.760
5	$M_{6 \rightarrow 1}$	236.000	502.000	586.333	629.333	764.667	533.667	512.077
5	$M_{7 \rightarrow 1}$	481.333	494.667	511.667	534.667	840.000	505.667	503.746
5	$M_{8 \rightarrow 1}$	7.333	210.000	255.000	330.000	409.333	461.000	478.872
5	$M_{9 \rightarrow 1}$	482.000	501.333	541.667	562.000	914.667	517.667	510.381
5	$M_{1 \rightarrow 2}$	360.000	690.667	983.000	1000.000	1000.000	589.667	544.037
5	$M_{3 \rightarrow 2}$	8.667	280.667	415.667	462.000	475.333	469.000	486.565
5	$M_{4 \rightarrow 2}$	74.667	432.000	541.000	590.000	746.667	467.667	477.742
5	$M_{5 \rightarrow 2}$	512.667	890.000	984.333	1000.000	1000.000	583.667	550.568
5	$M_{6 \rightarrow 2}$	0.000	0.000	0.333	18.000	536.000	438.333	465.198
5	$M_{7 \rightarrow 2}$	391.333	744.667	983.667	1000.000	1000.000	609.667	569.221
5	$M_{8 \rightarrow 2}$	700.667	950.667	983.000	998.000	1000.000	533.667	506.291
5	$M_{9 \rightarrow 2}$	0.000	0.000	0.333	12.667	700.000	439.000	471.334
5	$M_{1 \rightarrow 3}$	0.000	0.000	0.333	10.667	44.000	592.333	586.747
5	$M_{2 \rightarrow 3}$	134.000	850.667	913.000	971.333	985.333	570.333	551.663
5	$M_{4 \rightarrow 3}$	0.667	423.333	466.333	673.333	784.667	480.333	467.733
5	$M_{5 \rightarrow 3}$	0.000	92.667	171.667	213.333	718.667	344.333	350.006
5	$M_{6 \rightarrow 3}$	592.667	966.667	988.333	1000.000	1000.000	517.667	499.442
5	$M_{7 \rightarrow 3}$	219.333	946.000	987.667	1000.000	1000.000	542.333	528.253
5	$M_{8 \rightarrow 3}$	0.000	192.667	246.333	450.000	680.667	371.667	416.317
5	$M_{9 \rightarrow 3}$	2.667	179.333	247.000	399.333	796.000	388.333	434.360
5	$M_{1 \rightarrow 4}$	818.667	945.333	981.000	998.000	1000.000	455.667	473.393
5	$M_{2 \rightarrow 4}$	0.000	0.000	0.333	16.000	819.333	401.000	411.577
5	$M_{3 \rightarrow 4}$	596.000	930.000	984.333	1000.000	1000.000	533.667	510.048

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
5	M _{5->4}	234.667	866.000	904.333	970.000	989.333	709.667	687.602
5	M _{6->4}	304.000	406.000	441.000	458.667	1000.000	513.000	509.978
5	M _{7->4}	960.667	969.333	985.667	1000.000	1000.000	529.667	511.656
5	M _{8->4}	259.333	695.333	788.333	980.000	998.000	672.333	612.365
5	M _{9->4}	336.667	758.000	973.667	998.000	1000.000	607.667	583.668
5	M _{1->5}	565.333	791.333	980.333	1000.000	1000.000	775.000	688.907
5	M _{2->5}	234.000	698.000	889.000	994.000	1000.000	641.000	593.894
5	M _{3->5}	650.000	800.000	951.000	992.000	998.000	560.333	545.531
5	M _{4->5}	446.000	682.667	835.667	930.000	994.667	597.000	554.171
5	M _{6->5}	0.000	0.000	0.333	201.333	358.000	439.000	456.875
5	M _{7->5}	0.000	0.000	0.333	232.667	516.667	321.000	364.383
5	M _{8->5}	0.000	4.000	111.000	148.000	747.333	373.000	421.674
5	M _{9->5}	0.000	0.000	23.000	97.333	306.667	464.333	468.818
5	M _{1->6}	0.000	0.000	0.333	42.000	186.667	405.667	404.185
5	M _{2->6}	338.667	834.667	865.000	920.000	1000.000	652.333	639.730
5	M _{3->6}	0.000	0.000	0.333	136.667	847.333	380.333	419.559
5	M _{4->6}	128.667	612.667	725.000	872.667	984.667	608.333	564.109
5	M _{5->6}	0.000	0.000	80.333	177.333	796.000	391.667	422.567
5	M _{7->6}	496.667	752.667	821.000	924.000	1000.000	756.333	659.661
5	M _{8->6}	693.333	787.333	959.667	983.333	992.000	529.000	531.497
5	M _{9->6}	0.000	374.667	406.333	484.000	770.000	423.667	450.227
5	M _{1->7}	0.000	112.000	209.667	246.000	668.000	443.000	465.371
5	M _{2->7}	0.000	4.667	65.000	95.333	615.333	390.333	440.200
5	M _{3->7}	0.000	0.000	0.333	13.333	318.667	471.000	479.002
5	M _{4->7}	0.000	0.000	17.000	157.333	634.000	297.000	340.309
5	M _{5->7}	808.667	974.000	989.000	1000.000	1000.000	341.667	390.645
5	M _{6->7}	208.667	269.333	341.667	444.667	537.333	435.667	470.119
5	M _{8->7}	0.000	234.667	283.667	368.667	632.667	447.000	472.252
5	M _{9->7}	396.000	787.333	846.333	983.333	989.333	555.667	552.196
5	M _{1->8}	580.667	866.667	893.667	974.667	989.333	520.333	508.988
5	M _{2->8}	3.333	54.000	187.667	270.000	357.333	437.000	458.335
5	M _{3->8}	952.667	968.000	985.000	998.000	1000.000	449.667	462.885
5	M _{4->8}	398.667	450.000	641.000	771.333	815.333	544.333	521.721
5	M _{5->8}	0.000	134.667	157.000	247.333	330.667	472.333	475.392
5	M _{6->8}	0.000	0.000	0.333	192.000	602.667	431.667	450.879
5	M _{7->8}	206.667	420.000	444.333	467.333	998.000	584.333	576.711
5	M _{9->8}	892.000	966.667	987.000	1000.000	1000.000	429.000	446.674
5	M _{1->9}	0.000	278.667	421.667	509.333	848.667	428.333	460.664
5	M _{2->9}	398.000	746.000	858.333	969.333	979.333	597.000	562.086
5	M _{3->9}	0.000	6.000	213.667	331.333	816.000	346.333	401.668
5	M _{4->9}	126.667	832.000	967.000	990.000	1000.000	576.333	570.296

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
5	M _{5->9}	500.667	835.333	986.333	1000.000	1000.000	649.000	576.573
5	M _{6->9}	147.333	289.333	363.667	542.000	843.333	487.000	502.843
5	M _{7->9}	0.000	0.000	0.333	14.667	716.000	427.000	449.856
5	M _{8->9}	0.000	0.000	0.333	244.667	662.000	257.667	309.442
6	Θ ₁	0.01247	0.02213	0.02770	0.02927	0.03653	0.02463	0.02444
6	Θ ₂	0.02153	0.02860	0.03137	0.03840	0.06940	0.04470	0.04947
6	Θ ₃	0.01067	0.01373	0.01630	0.01927	0.04320	0.01810	0.02242
6	Θ ₄	0.04093	0.05373	0.05563	0.06053	0.09893	0.06790	0.06808
6	Θ ₅	0.02207	0.02740	0.03397	0.04520	0.06953	0.04697	0.05274
6	Θ ₆	0.03713	0.04220	0.04670	0.04920	0.09013	0.06230	0.06416
6	Θ ₇	0.02320	0.02680	0.03103	0.03980	0.06880	0.04137	0.04806
6	Θ ₈	0.03087	0.03820	0.04357	0.04593	0.06067	0.06090	0.06265
6	Θ ₉	0.01920	0.02600	0.04003	0.04640	0.07773	0.04410	0.04973
6	M _{2->1}	216.000	316.667	343.667	374.000	536.000	352.333	368.071
6	M _{3->1}	272.000	344.000	390.333	434.000	554.667	412.333	471.226
6	M _{4->1}	310.000	446.000	461.667	512.667	858.000	582.333	594.971
6	M _{5->1}	138.667	306.000	347.000	376.000	530.000	342.333	356.785
6	M _{6->1}	295.333	446.000	469.667	500.000	674.000	495.000	501.998
6	M _{7->1}	777.333	860.000	957.667	986.667	1000.000	871.000	794.152
6	M _{8->1}	484.000	706.000	757.000	832.000	868.000	703.000	696.280
6	M _{9->1}	625.333	730.000	761.000	787.333	980.667	777.000	760.941
6	M _{1->2}	85.333	344.000	369.667	388.667	446.000	297.667	285.967
6	M _{3->2}	232.000	342.667	415.667	439.333	511.333	588.333	589.644
6	M _{4->2}	390.667	514.667	538.333	621.333	853.333	585.667	603.790
6	M _{5->2}	185.333	306.667	343.000	362.000	459.333	311.000	306.244
6	M _{6->2}	305.333	389.333	415.000	459.333	640.000	470.333	478.442
6	M _{7->2}	84.667	109.333	136.333	200.667	344.667	194.333	222.820
6	M _{8->2}	68.000	80.667	175.000	234.000	498.000	226.333	270.602
6	M _{9->2}	187.333	414.667	531.000	557.333	654.667	455.667	436.729
6	M _{1->3}	452.667	556.667	580.333	629.333	841.333	641.667	645.018
6	M _{2->3}	2.000	106.667	147.667	168.667	344.000	147.667	162.013
6	M _{4->3}	160.667	247.333	291.000	329.333	516.667	322.333	336.065
6	M _{5->3}	10.667	15.333	45.000	142.667	183.333	315.667	372.614
6	M _{6->3}	578.000	911.333	953.667	972.667	992.000	797.667	805.840
6	M _{7->3}	42.667	58.667	115.667	177.333	206.000	190.333	258.601
6	M _{8->3}	382.667	562.000	586.333	708.000	848.667	625.000	623.451
6	M _{9->3}	734.000	922.000	983.000	1000.000	1000.000	923.667	876.521
6	M _{1->4}	420.000	666.000	690.333	708.667	792.667	606.333	602.984
6	M _{2->4}	221.333	260.667	299.667	340.000	816.000	489.667	500.659
6	M _{3->4}	437.333	644.667	683.667	742.667	946.000	681.000	688.349

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
6	M _{5->4}	52.667	128.000	216.333	248.000	404.667	217.000	223.990
6	M _{6->4}	230.667	493.333	568.333	596.000	677.333	495.667	481.833
6	M _{7->4}	352.667	458.000	517.667	579.333	686.000	613.667	637.510
6	M _{8->4}	282.000	382.667	419.000	448.667	574.000	415.000	418.767
6	M _{9->4}	390.667	424.667	491.000	597.333	650.667	568.333	652.520
6	M _{1->5}	270.000	594.667	629.667	657.333	795.333	535.667	526.800
6	M _{2->5}	171.333	200.667	288.333	354.667	448.000	337.000	420.043
6	M _{3->5}	278.000	362.000	436.333	533.333	719.333	519.667	578.760
6	M _{4->5}	586.000	767.333	837.667	911.333	1000.000	807.000	778.887
6	M _{6->5}	686.667	820.000	963.667	1000.000	1000.000	809.000	701.123
6	M _{7->5}	206.667	289.333	362.333	409.333	564.000	368.333	397.430
6	M _{8->5}	214.667	320.000	377.000	406.667	718.667	447.667	456.542
6	M _{9->5}	253.333	340.000	431.000	454.000	622.000	428.333	481.138
6	M _{1->6}	284.000	471.333	593.000	626.667	695.333	521.667	504.459
6	M _{2->6}	430.667	500.667	519.667	702.000	949.333	645.000	663.422
6	M _{3->6}	275.333	391.333	501.000	532.000	653.333	473.000	476.252
6	M _{4->6}	279.333	354.667	423.667	483.333	847.333	539.667	553.370
6	M _{5->6}	564.000	667.333	731.000	804.000	988.000	755.000	764.532
6	M _{7->6}	99.333	132.667	203.000	269.333	544.667	252.333	293.915
6	M _{8->6}	184.667	216.667	301.000	329.333	844.667	517.667	510.281
6	M _{9->6}	367.333	466.000	486.333	552.000	740.667	543.667	553.668
6	M _{1->7}	541.333	637.333	687.000	794.000	944.000	743.667	744.424
6	M _{2->7}	359.333	553.333	603.000	628.000	854.667	610.333	608.971
6	M _{3->7}	255.333	513.333	558.333	578.000	722.667	482.333	489.671
6	M _{4->7}	262.000	358.667	451.000	476.667	605.333	433.000	437.644
6	M _{5->7}	238.000	304.000	378.333	465.333	498.000	489.667	530.731
6	M _{6->7}	500.000	826.667	852.333	916.000	979.333	741.667	740.367
6	M _{8->7}	165.333	266.667	315.667	335.333	418.667	308.333	342.953
6	M _{9->7}	202.667	253.333	285.000	356.667	601.333	365.667	380.106
6	M _{1->8}	160.000	219.333	269.667	293.333	389.333	267.000	271.283
6	M _{2->8}	20.000	108.000	127.000	150.667	274.667	142.333	167.927
6	M _{3->8}	74.000	234.667	317.000	361.333	428.667	277.000	264.935
6	M _{4->8}	346.000	391.333	408.333	546.000	917.333	581.000	601.112
6	M _{5->8}	581.333	688.000	744.333	838.667	949.333	769.000	764.374
6	M _{6->8}	382.000	513.333	571.000	658.667	758.667	582.333	581.816
6	M _{7->8}	234.000	476.667	502.333	521.333	754.000	502.333	498.741
6	M _{9->8}	336.000	504.000	575.000	593.333	716.667	529.667	526.566
6	M _{1->9}	328.000	442.667	541.000	572.000	707.333	506.333	508.444
6	M _{2->9}	318.000	503.333	545.667	564.000	730.667	514.333	519.695
6	M _{3->9}	286.000	359.333	409.000	483.333	700.667	448.333	470.908
6	M _{4->9}	484.000	838.000	981.000	998.667	1000.000	801.667	766.653

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
6	M _{5->9}	616.000	734.667	838.333	859.333	996.000	809.667	802.760
6	M _{6->9}	8.000	24.667	52.333	82.667	311.333	154.333	206.465
6	M _{7->9}	463.333	729.333	791.667	835.333	924.000	705.000	702.591
6	M _{8->9}	0.000	0.000	22.333	85.333	130.667	103.667	155.603
7	Θ ₁	0.06440	0.08660	0.09517	0.09887	0.10000	0.08550	0.08362
7	Θ ₂	0.06180	0.08480	0.09650	0.09920	0.10000	0.08563	0.08329
7	Θ ₃	0.04573	0.07293	0.08197	0.09707	0.09900	0.07163	0.06870
7	Θ ₄	0.01393	0.01953	0.02210	0.02447	0.08007	0.04350	0.04721
7	Θ ₅	0.01067	0.01833	0.02130	0.02680	0.06620	0.04837	0.05096
7	Θ ₆	0.00727	0.00767	0.01057	0.02093	0.02353	0.02103	0.04182
7	Θ ₇	0.01873	0.02707	0.02897	0.03360	0.08460	0.05090	0.05395
7	Θ ₈	0.00000	0.00033	0.00197	0.00360	0.04213	0.00330	0.01052
7	Θ ₉	0.03053	0.06520	0.06797	0.07447	0.08860	0.06563	0.06312
7	M _{2->1}	154.667	215.333	242.333	286.667	346.000	249.667	251.140
7	M _{3->1}	0.000	0.000	6.333	18.667	50.667	19.000	19.791
7	M _{4->1}	78.000	158.667	185.000	221.333	272.667	191.667	188.531
7	M _{5->1}	0.000	0.000	7.000	31.333	101.333	31.667	35.057
7	M _{6->1}	4.667	18.000	39.667	74.000	170.000	65.667	73.758
7	M _{7->1}	5.333	32.000	62.333	93.333	224.667	79.667	101.861
7	M _{8->1}	0.000	12.667	23.000	35.333	62.000	27.667	28.573
7	M _{9->1}	0.000	2.667	13.667	25.333	76.000	23.000	23.971
7	M _{1->2}	4.000	20.000	31.667	43.333	75.333	35.667	37.330
7	M _{3->2}	0.000	0.000	0.333	16.000	59.333	16.333	22.288
7	M _{4->2}	20.667	35.333	51.667	68.000	118.667	59.667	64.023
7	M _{5->2}	0.000	3.333	15.000	24.000	74.000	21.000	23.256
7	M _{6->2}	0.667	15.333	25.667	35.333	52.000	27.667	26.893
7	M _{7->2}	2.000	15.333	28.333	43.333	80.667	36.333	38.254
7	M _{8->2}	0.000	12.000	25.667	38.667	77.333	32.333	35.500
7	M _{9->2}	28.667	50.667	63.667	76.667	103.333	65.667	65.592
7	M _{1->3}	0.000	0.000	0.333	95.333	472.000	95.667	166.551
7	M _{2->3}	303.333	705.333	773.000	813.333	934.667	636.333	624.225
7	M _{4->3}	525.333	830.000	950.333	986.667	1000.000	843.000	809.084
7	M _{5->3}	10.667	73.333	113.000	172.667	306.667	137.000	148.019
7	M _{6->3}	148.000	284.000	363.667	501.333	773.333	435.000	457.619
7	M _{7->3}	0.000	0.000	36.333	65.333	288.000	65.667	100.703
7	M _{8->3}	0.000	186.000	235.000	329.333	478.000	233.000	238.311
7	M _{9->3}	524.667	686.000	731.000	746.000	1000.000	761.667	766.037
7	M _{1->4}	59.333	93.333	121.667	148.667	264.667	142.333	151.867
7	M _{2->4}	0.000	0.000	0.333	24.667	184.667	37.000	76.332
7	M _{3->4}	114.667	197.333	246.333	267.333	329.333	225.000	223.503

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
7	M _{5->4}	0.000	0.000	11.000	19.333	52.667	19.667	20.402
7	M _{6->4}	50.667	99.333	139.000	178.000	318.000	175.667	181.822
7	M _{7->4}	16.667	65.333	97.667	128.000	308.000	108.333	132.658
7	M _{8->4}	0.000	12.667	31.000	52.667	163.333	45.000	57.820
7	M _{9->4}	2.000	22.667	39.000	56.667	100.000	45.667	48.772
7	M _{1->5}	0.000	13.333	45.000	122.667	496.667	184.333	215.148
7	M _{2->5}	393.333	676.000	724.333	757.333	998.667	700.333	699.865
7	M _{3->5}	189.333	460.000	495.667	555.333	968.667	556.333	568.608
7	M _{4->5}	455.333	837.333	948.333	998.000	1000.000	797.000	765.610
7	M _{6->5}	454.000	830.000	931.667	971.333	983.333	591.000	555.043
7	M _{7->5}	134.000	288.000	353.667	378.667	679.333	497.000	528.794
7	M _{8->5}	194.667	422.000	451.000	514.667	998.667	552.333	547.323
7	M _{9->5}	96.667	120.000	277.667	371.333	779.333	383.667	438.883
7	M _{1->6}	0.000	0.000	15.000	32.000	106.667	31.667	36.928
7	M _{2->6}	2.000	14.667	27.667	47.333	156.667	68.333	72.246
7	M _{3->6}	196.667	259.333	289.667	314.667	420.000	252.333	225.209
7	M _{4->6}	49.333	107.333	159.000	197.333	470.000	169.000	205.581
7	M _{5->6}	44.000	78.667	104.333	152.667	348.000	179.000	187.941
7	M _{7->6}	0.000	0.000	0.333	16.000	73.333	16.333	24.344
7	M _{8->6}	0.000	17.333	37.000	50.000	85.333	39.000	38.546
7	M _{9->6}	22.000	47.333	69.667	133.333	285.333	120.333	134.847
7	M _{1->7}	434.000	742.000	911.000	990.667	1000.000	750.333	673.885
7	M _{2->7}	0.000	0.000	9.000	68.667	282.667	87.667	108.734
7	M _{3->7}	0.000	0.000	11.667	194.667	460.000	236.333	316.039
7	M _{4->7}	10.000	45.333	93.000	254.667	421.333	236.333	322.571
7	M _{5->7}	84.000	393.333	479.000	631.333	845.333	498.333	490.011
7	M _{6->7}	180.000	300.667	364.333	405.333	935.333	542.333	536.452
7	M _{8->7}	0.000	0.000	15.000	63.333	292.000	63.667	90.172
7	M _{9->7}	340.000	964.667	987.667	1000.000	1000.000	574.333	541.768
7	M _{1->8}	0.000	220.000	324.333	350.667	648.000	331.000	331.891
7	M _{2->8}	458.000	822.000	911.000	998.000	1000.000	709.000	630.244
7	M _{3->8}	52.667	322.667	366.333	471.333	859.333	451.000	464.323
7	M _{4->8}	30.667	48.667	127.667	239.333	885.333	396.333	432.608
7	M _{5->8}	0.000	0.000	0.333	156.000	638.000	259.000	297.508
7	M _{6->8}	102.000	178.000	338.333	500.667	666.000	419.667	469.927
7	M _{7->8}	68.000	197.333	339.000	442.000	838.667	419.667	456.780
7	M _{9->8}	496.667	846.667	986.333	1000.000	1000.000	812.333	770.294
7	M _{1->9}	27.333	49.333	67.000	94.667	184.000	98.333	102.097
7	M _{2->9}	0.000	11.333	26.333	38.000	84.667	29.000	32.087
7	M _{3->9}	0.000	34.667	53.000	76.000	118.000	57.667	58.962
7	M _{4->9}	0.000	6.667	17.667	29.333	56.000	24.333	23.735

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
7	$M_{5 \rightarrow 9}$	0.000	8.667	20.333	30.667	54.000	24.333	23.949
7	$M_{6 \rightarrow 9}$	22.667	55.333	78.333	96.000	135.333	77.667	78.279
7	$M_{7 \rightarrow 9}$	0.000	0.667	15.000	28.000	74.000	27.000	29.587
7	$M_{8 \rightarrow 9}$	0.000	0.000	0.333	16.000	67.333	16.333	23.712
8	Θ_1	0.08533	0.09547	0.09837	0.09987	0.10000	0.09577	0.09470
8	Θ_2	0.08120	0.09260	0.09637	0.09827	0.10000	0.09370	0.09342
8	Θ_3	0.07747	0.09567	0.09830	0.09973	0.10000	0.09210	0.09155
8	Θ_4	0.08607	0.09573	0.09837	0.09973	0.10000	0.09617	0.09522
8	Θ_5	0.06607	0.09087	0.09837	0.09967	0.10000	0.08897	0.08678
8	Θ_6	0.07113	0.08953	0.09670	0.09893	0.10000	0.09050	0.08938
8	Θ_7	0.06307	0.08520	0.09263	0.09900	0.10000	0.08570	0.08315
8	Θ_8	0.06007	0.08593	0.09217	0.09473	0.10000	0.08377	0.08172
8	Θ_9	0.06467	0.08700	0.09583	0.09753	0.10000	0.08543	0.08409
8	$M_{2 \rightarrow 1}$	76.000	88.667	97.000	104.667	117.333	97.667	96.858
8	$M_{3 \rightarrow 1}$	92.000	105.333	114.333	122.667	136.667	115.000	114.441
8	$M_{4 \rightarrow 1}$	4.667	16.000	24.333	31.333	42.667	25.000	24.259
8	$M_{5 \rightarrow 1}$	0.000	7.333	14.333	21.333	30.000	16.333	14.546
8	$M_{6 \rightarrow 1}$	36.667	49.333	58.333	66.000	78.667	59.000	58.108
8	$M_{7 \rightarrow 1}$	0.000	3.333	10.333	16.000	26.000	13.000	10.247
8	$M_{8 \rightarrow 1}$	0.000	0.000	1.000	8.000	18.667	8.333	2.694
8	$M_{9 \rightarrow 1}$	0.000	7.333	15.000	22.000	30.667	16.333	14.823
8	$M_{1 \rightarrow 2}$	37.333	49.333	57.667	65.333	78.000	58.333	57.883
8	$M_{3 \rightarrow 2}$	95.333	109.333	118.333	126.667	140.000	119.000	118.348
8	$M_{4 \rightarrow 2}$	42.000	55.333	64.333	72.667	86.667	65.000	64.506
8	$M_{5 \rightarrow 2}$	26.667	38.667	47.000	54.667	66.667	47.667	46.798
8	$M_{6 \rightarrow 2}$	64.667	79.333	88.333	96.667	110.667	89.000	88.320
8	$M_{7 \rightarrow 2}$	25.333	38.667	47.667	55.333	69.333	48.333	47.668
8	$M_{8 \rightarrow 2}$	3.333	13.333	21.667	28.667	39.333	22.333	21.586
8	$M_{9 \rightarrow 2}$	0.000	8.667	16.333	23.333	32.667	17.667	16.489
8	$M_{1 \rightarrow 3}$	4.000	14.667	23.000	30.000	40.667	23.667	22.829
8	$M_{2 \rightarrow 3}$	52.000	65.333	73.667	82.000	95.333	74.333	73.945
8	$M_{4 \rightarrow 3}$	82.667	96.667	106.333	114.667	130.000	107.000	106.490
8	$M_{5 \rightarrow 3}$	0.000	1.333	7.667	13.333	24.000	11.667	7.714
8	$M_{6 \rightarrow 3}$	0.000	0.000	3.667	9.333	20.000	9.667	3.824
8	$M_{7 \rightarrow 3}$	104.000	120.667	129.667	139.333	154.667	130.333	129.679
8	$M_{8 \rightarrow 3}$	104.667	120.000	129.667	139.333	156.000	131.000	130.240
8	$M_{9 \rightarrow 3}$	24.000	36.000	44.333	52.000	64.000	45.000	44.508
8	$M_{1 \rightarrow 4}$	50.667	63.333	72.333	80.000	92.667	73.000	72.305
8	$M_{2 \rightarrow 4}$	46.000	58.667	67.000	74.667	86.667	67.667	66.828
8	$M_{3 \rightarrow 4}$	37.333	49.333	58.333	65.333	77.333	58.333	58.026

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
8	M _{5->4}	0.000	4.000	11.000	17.333	26.667	13.667	11.067
8	M _{6->4}	28.000	40.000	48.333	56.000	67.333	49.000	48.020
8	M _{7->4}	0.000	5.333	12.333	18.667	28.000	14.333	12.341
8	M _{8->4}	0.000	0.000	5.667	10.667	22.000	10.333	5.723
8	M _{9->4}	0.000	4.000	11.000	17.333	27.333	13.667	11.289
8	M _{1->5}	130.000	150.000	161.667	172.667	196.667	163.000	162.599
8	M _{2->5}	0.000	6.667	14.333	20.667	30.667	15.667	14.293
8	M _{3->5}	3.333	15.333	23.667	31.333	43.333	24.333	23.748
8	M _{4->5}	12.667	24.667	33.000	40.667	52.000	33.667	32.866
8	M _{6->5}	64.000	80.667	91.000	101.333	118.667	92.333	91.932
8	M _{7->5}	58.000	74.000	84.333	93.333	112.667	85.667	85.588
8	M _{8->5}	0.000	4.667	11.667	18.667	29.333	14.333	11.810
8	M _{9->5}	11.333	24.000	32.333	40.000	52.667	33.000	32.683
8	M _{1->6}	22.667	35.333	43.667	51.333	64.000	44.333	43.458
8	M _{2->6}	79.333	94.667	104.333	112.667	128.667	105.000	104.353
8	M _{3->6}	6.667	17.333	25.667	32.667	44.000	26.333	25.408
8	M _{4->6}	54.667	71.333	81.667	90.667	107.333	82.333	81.569
8	M _{5->6}	40.667	54.667	63.667	72.000	85.333	64.333	63.531
8	M _{7->6}	62.667	77.333	86.333	95.333	110.000	87.000	86.494
8	M _{8->6}	0.000	2.667	9.000	14.667	25.333	12.333	8.933
8	M _{9->6}	4.667	16.000	24.333	32.000	43.333	25.000	24.518
8	M _{1->7}	69.333	84.000	93.667	102.667	118.667	95.000	94.398
8	M _{2->7}	19.333	32.000	41.000	48.667	61.333	41.000	40.726
8	M _{3->7}	110.000	126.667	137.667	148.667	168.667	139.000	139.008
8	M _{4->7}	56.000	72.000	81.667	91.333	106.667	82.333	81.651
8	M _{5->7}	69.333	86.000	96.333	105.333	123.333	97.000	96.968
8	M _{6->7}	0.000	0.000	0.333	8.000	19.333	8.333	3.284
8	M _{8->7}	0.000	8.000	15.667	22.667	32.000	17.000	15.731
8	M _{9->7}	62.667	77.333	88.333	97.333	116.667	89.000	89.188
8	M _{1->8}	3.333	14.000	22.333	30.000	41.333	23.000	22.611
8	M _{2->8}	158.000	176.667	188.333	204.000	232.000	193.667	194.131
8	M _{3->8}	0.000	0.000	2.333	9.333	21.333	9.667	4.862
8	M _{4->8}	18.667	32.000	41.000	49.333	63.333	41.667	41.421
8	M _{5->8}	38.000	52.667	62.333	70.667	86.000	62.333	61.985
8	M _{6->8}	2.000	14.000	22.333	30.000	41.333	23.000	22.228
8	M _{7->8}	0.000	5.333	12.333	19.333	30.000	15.000	12.548
8	M _{9->8}	142.667	162.000	172.333	184.000	204.000	173.667	173.436
8	M _{1->9}	57.333	76.000	87.000	97.333	114.667	87.000	86.490
8	M _{2->9}	0.000	0.667	6.333	11.333	22.667	10.333	5.976
8	M _{3->9}	5.333	16.667	25.000	32.667	44.000	25.667	24.754
8	M _{4->9}	57.333	72.667	82.333	91.333	108.667	83.667	83.206

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
8	$M_{5 \rightarrow 9}$	12.000	25.333	34.333	42.667	56.667	35.000	34.766
8	$M_{6 \rightarrow 9}$	4.667	16.000	24.333	32.000	43.333	25.000	24.304
8	$M_{7 \rightarrow 9}$	21.333	34.000	43.000	50.667	63.333	43.667	42.861
8	$M_{8 \rightarrow 9}$	125.333	144.000	155.667	166.667	186.667	156.333	155.858
9	Θ_1	0.03000	0.06300	0.07677	0.09000	0.09773	0.06810	0.06618
9	Θ_2	0.04527	0.05973	0.06490	0.07580	0.10000	0.06997	0.07017
9	Θ_3	0.07447	0.09167	0.09843	0.09993	0.10000	0.09190	0.09004
9	Θ_4	0.04407	0.08367	0.09037	0.09347	0.09887	0.07410	0.07361
9	Θ_5	0.05393	0.07947	0.09530	0.09787	0.10000	0.08117	0.07851
9	Θ_6	0.06960	0.08960	0.09690	0.09927	0.10000	0.09030	0.08866
9	Θ_7	0.08007	0.09300	0.09610	0.09800	0.10000	0.09410	0.09390
9	Θ_8	0.04773	0.08900	0.09330	0.09873	0.10000	0.08030	0.07717
9	Θ_9	0.04733	0.09047	0.09530	0.09793	0.10000	0.07897	0.07610
9	$M_{2 \rightarrow 1}$	41.333	90.000	115.667	134.667	165.333	106.333	104.533
9	$M_{3 \rightarrow 1}$	0.000	14.000	25.000	36.667	60.000	28.333	28.628
9	$M_{4 \rightarrow 1}$	20.000	53.333	71.667	86.667	118.000	70.333	70.135
9	$M_{5 \rightarrow 1}$	10.000	31.333	45.667	59.333	107.333	50.333	53.645
9	$M_{6 \rightarrow 1}$	0.000	6.000	15.000	23.333	42.667	18.333	17.361
9	$M_{7 \rightarrow 1}$	0.000	0.000	0.333	9.333	32.667	9.667	10.032
9	$M_{8 \rightarrow 1}$	0.000	12.667	25.000	38.667	72.000	31.667	33.454
9	$M_{9 \rightarrow 1}$	44.667	68.667	97.667	116.667	191.333	103.667	109.103
9	$M_{1 \rightarrow 2}$	0.000	6.667	14.333	21.333	33.333	16.333	14.447
9	$M_{3 \rightarrow 2}$	0.000	4.000	11.667	18.000	33.333	14.333	11.869
9	$M_{4 \rightarrow 2}$	0.000	9.333	17.667	25.333	37.333	19.000	17.847
9	$M_{5 \rightarrow 2}$	0.000	0.000	5.667	10.667	24.667	11.000	7.018
9	$M_{6 \rightarrow 2}$	0.000	6.667	15.000	22.000	35.333	17.000	15.381
9	$M_{7 \rightarrow 2}$	43.333	58.000	71.667	86.000	132.000	78.333	82.404
9	$M_{8 \rightarrow 2}$	0.000	0.000	3.667	10.000	22.667	10.333	5.289
9	$M_{9 \rightarrow 2}$	8.667	23.333	33.667	42.667	61.333	35.000	35.108
9	$M_{1 \rightarrow 3}$	0.000	0.000	0.333	6.000	16.000	6.333	2.337
9	$M_{2 \rightarrow 3}$	6.667	21.333	31.000	40.000	58.000	32.333	32.009
9	$M_{4 \rightarrow 3}$	0.000	2.000	9.000	14.000	26.000	12.333	8.684
9	$M_{5 \rightarrow 3}$	0.000	12.667	21.000	29.333	41.333	22.333	21.375
9	$M_{6 \rightarrow 3}$	7.333	21.333	30.333	40.000	57.333	32.333	31.925
9	$M_{7 \rightarrow 3}$	14.667	30.667	41.000	51.333	70.000	43.000	42.496
9	$M_{8 \rightarrow 3}$	0.000	0.000	0.333	8.667	20.667	9.000	4.801
9	$M_{9 \rightarrow 3}$	1.333	13.333	22.333	30.000	42.667	23.000	22.254
9	$M_{1 \rightarrow 4}$	30.000	52.667	72.333	89.333	127.333	76.333	77.468
9	$M_{2 \rightarrow 4}$	4.667	20.667	31.667	41.333	59.333	32.333	32.003
9	$M_{3 \rightarrow 4}$	0.000	7.333	17.667	27.333	50.667	21.667	21.278

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
9	M _{5->4}	0.000	14.000	24.333	34.667	52.000	27.000	25.959
9	M _{6->4}	36.667	56.667	69.667	82.000	108.667	71.667	72.038
9	M _{7->4}	0.000	4.667	13.000	20.667	41.333	17.000	15.229
9	M _{8->4}	0.000	15.333	26.333	40.000	68.000	31.667	32.860
9	M _{9->4}	0.000	29.333	41.000	51.333	70.000	35.667	32.363
9	M _{1->5}	0.000	1.333	7.667	14.000	30.000	13.000	9.654
9	M _{2->5}	0.000	10.667	24.333	34.667	58.667	27.667	26.416
9	M _{3->5}	20.000	38.667	52.333	64.000	96.000	55.000	56.153
9	M _{4->5}	12.667	28.000	37.667	47.333	64.667	39.000	38.714
9	M _{6->5}	11.333	32.667	57.667	72.000	111.333	58.333	59.484
9	M _{7->5}	0.000	0.000	0.333	9.333	26.667	9.667	8.753
9	M _{8->5}	0.000	0.000	0.333	6.667	20.000	7.000	4.886
9	M _{9->5}	0.000	2.667	9.000	15.333	28.667	13.000	9.337
9	M _{1->6}	0.000	0.000	0.333	7.333	19.333	7.667	3.640
9	M _{2->6}	0.000	4.667	11.667	18.667	30.667	14.333	12.038
9	M _{3->6}	15.333	32.667	44.333	56.667	79.333	47.000	47.479
9	M _{4->6}	0.667	12.667	21.667	29.333	42.000	22.333	21.586
9	M _{5->6}	0.000	13.333	21.667	30.000	42.667	23.000	22.075
9	M _{7->6}	20.000	40.667	53.000	66.667	94.000	56.333	56.740
9	M _{8->6}	0.000	0.000	0.333	6.000	18.000	6.333	3.193
9	M _{9->6}	0.000	0.000	0.333	6.000	17.333	6.333	3.050
9	M _{1->7}	2.000	12.667	21.000	28.667	40.000	21.667	21.077
9	M _{2->7}	0.000	8.000	15.667	22.667	33.333	17.000	15.807
9	M _{3->7}	0.000	0.000	0.333	5.333	14.000	5.667	0.601
9	M _{4->7}	0.000	1.333	7.667	13.333	24.000	11.667	7.705
9	M _{5->7}	0.000	6.667	13.667	20.667	30.000	15.667	13.943
9	M _{6->7}	0.000	3.333	10.333	16.667	27.333	13.000	10.505
9	M _{8->7}	0.000	3.333	10.333	16.000	26.667	13.000	10.208
9	M _{9->7}	0.000	0.667	6.333	12.000	22.667	11.000	6.486
9	M _{1->8}	0.000	4.000	15.000	24.000	57.333	20.333	20.985
9	M _{2->8}	0.000	7.333	20.333	36.667	100.000	31.667	36.907
9	M _{3->8}	2.000	50.000	79.000	97.333	135.333	71.667	70.511
9	M _{4->8}	0.000	6.000	19.000	32.000	73.333	27.000	29.277
9	M _{5->8}	71.333	110.000	142.333	173.333	304.667	155.000	169.235
9	M _{6->8}	0.000	15.333	28.333	44.000	74.000	35.000	35.348
9	M _{7->8}	0.000	12.000	24.333	42.000	93.333	34.333	38.162
9	M _{9->8}	0.000	0.000	6.333	20.000	58.667	20.333	21.623
9	M _{1->9}	0.000	12.667	23.000	34.000	55.333	27.000	26.385
9	M _{2->9}	48.667	84.667	101.667	135.333	206.000	115.667	119.381
9	M _{3->9}	56.000	84.000	118.333	142.000	214.000	127.000	130.665
9	M _{4->9}	32.000	58.000	73.667	96.667	138.000	82.333	83.575

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
9	M _{5->9}	0.000	8.667	23.000	40.667	80.667	33.667	35.795
9	M _{6->9}	4.000	26.000	40.333	56.000	88.667	45.000	45.961
9	M _{7->9}	0.000	16.000	27.667	38.667	64.667	31.000	31.955
9	M _{8->9}	0.000	0.000	1.000	12.667	34.000	13.000	11.623
All	Θ ₁	0.08680	0.09560	0.09803	0.09947	0.10000	0.09617	0.09394
All	Θ ₂	0.08760	0.09460	0.09670	0.09880	0.10000	0.09550	0.09299
All	Θ ₃	0.09433	0.09673	0.09830	0.09947	0.10000	0.09730	0.09412
All	Θ ₄	0.08360	0.09160	0.09377	0.09613	0.10000	0.09337	0.09153
All	Θ ₅	0.07573	0.08620	0.08890	0.09067	0.09920	0.08943	0.08843
All	Θ ₆	0.08733	0.09220	0.09577	0.09693	0.09920	0.09383	0.09226
All	Θ ₇	0.08300	0.09160	0.09350	0.09560	0.09907	0.09317	0.09181
All	Θ ₈	0.00000	0.00240	0.00403	0.00573	0.01013	0.00490	0.02197
All	Θ ₉	0.06580	0.08447	0.08750	0.09080	0.09920	0.08270	0.06827
All	M _{2->1}	35.333	70.000	83.667	94.000	106.667	79.000	75.413
All	M _{3->1}	0.000	0.000	7.000	14.667	51.333	15.000	18.829
All	M _{4->1}	6.000	20.667	29.000	37.333	51.333	30.333	32.495
All	M _{5->1}	0.000	0.667	16.333	28.000	84.000	40.333	88.770
All	M _{6->1}	14.000	32.667	43.667	54.000	143.333	48.333	73.176
All	M _{7->1}	0.000	10.667	19.000	26.667	37.333	20.333	18.922
All	M _{8->1}	0.000	8.667	17.000	25.333	40.667	19.000	19.092
All	M _{9->1}	52.667	72.667	85.000	96.667	117.333	86.333	86.592
All	M _{1->2}	0.000	0.000	13.667	30.000	64.667	53.000	114.028
All	M _{3->2}	0.000	0.667	10.333	20.000	74.000	19.000	98.180
All	M _{4->2}	4.000	24.667	35.000	46.667	64.000	36.333	38.996
All	M _{5->2}	6.667	16.000	31.000	54.000	72.000	152.333	150.364
All	M _{6->2}	0.000	6.667	14.333	21.333	33.333	16.333	14.342
All	M _{7->2}	24.000	49.333	62.333	75.333	125.333	65.667	70.342
All	M _{8->2}	0.000	8.000	15.667	22.667	32.667	17.000	15.694
All	M _{9->2}	6.667	24.000	37.000	44.667	73.333	37.667	43.930
All	M _{1->3}	0.000	4.000	11.000	17.333	28.000	13.667	11.224
All	M _{2->3}	28.000	48.000	57.667	66.667	84.000	59.667	68.038
All	M _{4->3}	0.000	0.000	10.333	26.000	35.333	182.333	156.425
All	M _{5->3}	1.333	12.667	21.000	28.667	40.000	21.667	22.278
All	M _{6->3}	0.000	3.333	13.667	23.333	40.667	20.333	67.151
All	M _{7->3}	0.000	6.667	15.667	24.000	47.333	18.333	19.277
All	M _{8->3}	0.000	5.333	13.667	21.333	43.333	17.000	19.607
All	M _{9->3}	9.333	19.333	27.667	34.667	46.000	28.333	27.964
All	M _{1->4}	50.000	65.333	75.000	84.000	99.333	75.667	75.777
All	M _{2->4}	0.000	38.667	54.333	67.333	79.333	48.333	48.250
All	M _{3->4}	20.667	38.000	49.667	60.667	77.333	54.333	72.031

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
All	M _{5->4}	0.000	4.667	12.333	18.667	28.667	14.333	13.720
All	M _{6->4}	30.667	56.000	66.333	76.000	95.333	66.333	65.969
All	M _{7->4}	0.000	5.333	15.667	25.333	48.000	21.667	70.753
All	M _{8->4}	0.000	4.000	11.000	17.333	29.333	14.333	11.216
All	M _{9->4}	3.333	39.333	55.000	67.333	79.333	49.000	46.860
All	M _{1->5}	0.000	4.667	11.667	18.667	30.667	14.333	12.051
All	M _{2->5}	1.333	14.000	21.667	31.333	42.667	23.667	22.254
All	M _{3->5}	6.000	67.333	81.667	94.000	119.333	78.333	131.924
All	M _{4->5}	18.667	31.333	39.667	48.000	60.667	40.333	41.558
All	M _{6->5}	2.667	22.000	32.333	40.667	58.667	33.667	41.096
All	M _{7->5}	0.000	5.333	13.000	20.000	32.000	15.667	14.332
All	M _{8->5}	0.000	0.000	11.667	22.000	81.333	22.333	146.080
All	M _{9->5}	0.000	66.667	89.667	106.000	128.667	97.667	181.267
All	M _{1->6}	2.000	17.333	29.000	37.333	52.667	28.333	26.677
All	M _{2->6}	0.000	6.667	14.333	21.333	32.667	16.333	14.602
All	M _{3->6}	12.000	26.667	35.667	44.000	58.667	36.333	36.611
All	M _{4->6}	39.333	63.333	73.667	82.000	98.667	73.000	74.993
All	M _{5->6}	26.000	68.000	80.333	90.667	100.000	69.000	68.783
All	M _{7->6}	18.000	27.333	37.000	48.000	90.667	52.333	53.757
All	M _{8->6}	0.000	9.333	17.667	24.667	36.000	19.000	18.190
All	M _{9->6}	0.000	7.333	15.000	22.000	33.333	17.000	17.678
All	M _{1->7}	0.000	20.000	30.333	40.000	100.667	33.000	68.881
All	M _{2->7}	5.333	17.333	26.333	34.000	46.667	27.000	26.518
All	M _{3->7}	0.000	0.000	6.333	21.333	34.000	158.333	127.271
All	M _{4->7}	48.667	64.000	73.667	82.667	98.000	74.333	73.514
All	M _{5->7}	0.000	3.333	14.333	24.667	38.667	21.667	74.237
All	M _{6->7}	0.000	2.000	9.667	16.000	34.667	13.667	13.997
All	M _{8->7}	0.000	3.333	14.333	24.000	45.333	21.000	29.548
All	M _{9->7}	0.000	0.000	13.667	32.667	42.667	33.000	178.297
All	M _{1->8}	0.000	14.667	25.667	39.333	53.333	27.667	27.363
All	M _{2->8}	42.000	64.000	75.667	87.333	105.333	79.000	94.582
All	M _{3->8}	57.333	76.667	91.667	109.333	153.333	86.333	79.695
All	M _{4->8}	1.333	18.000	27.667	36.000	58.667	29.667	35.910
All	M _{5->8}	14.667	44.000	55.667	64.667	84.667	55.000	59.523
All	M _{6->8}	12.000	24.667	33.000	40.667	53.333	33.667	34.575
All	M _{7->8}	0.000	11.333	19.667	27.333	39.333	21.000	25.295
All	M _{9->8}	0.000	48.667	64.333	79.333	98.667	61.000	120.888
All	M _{1->9}	0.000	0.000	13.000	21.333	50.000	46.333	53.182
All	M _{2->9}	0.000	4.000	11.000	17.333	29.333	14.333	11.560
All	M _{3->9}	68.667	85.333	99.000	112.667	136.667	97.667	90.710
All	M _{4->9}	40.667	54.000	63.000	71.333	85.333	63.667	63.002

Locus	Parameter	2.5%	25.0%	Mode	75.0%	97.5%	Median	Mean
All	$M_{5 \rightarrow 9}$	8.000	40.000	51.000	61.333	71.333	48.333	45.461
All	$M_{6 \rightarrow 9}$	4.000	23.333	33.667	43.333	62.667	35.000	35.695
All	$M_{7 \rightarrow 9}$	6.000	18.667	29.667	37.333	58.000	30.333	32.561
All	$M_{8 \rightarrow 9}$	5.333	17.333	35.000	58.000	78.667	71.000	94.794

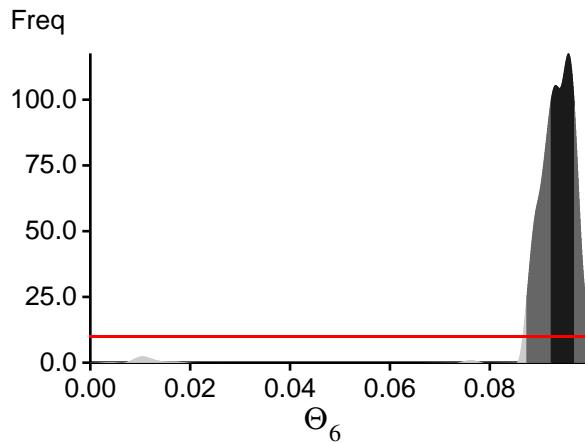
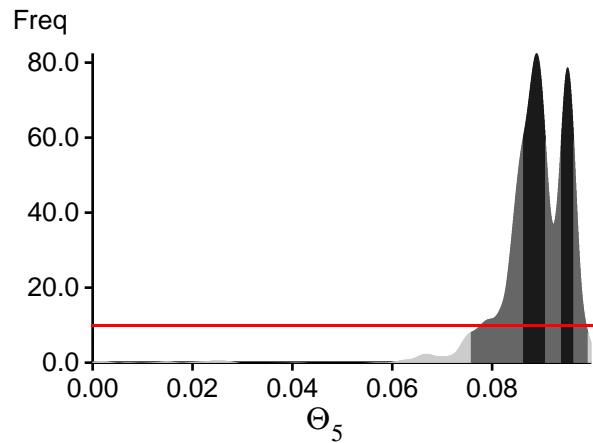
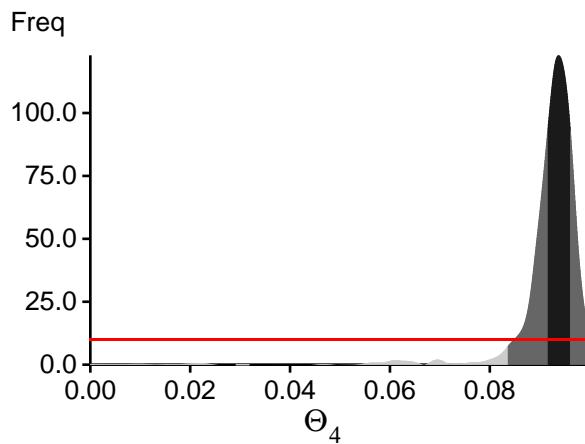
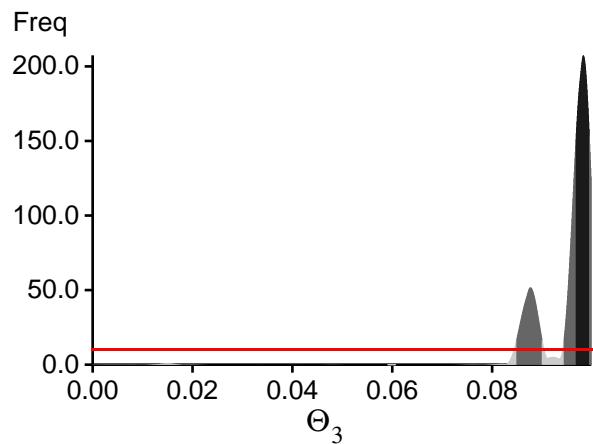
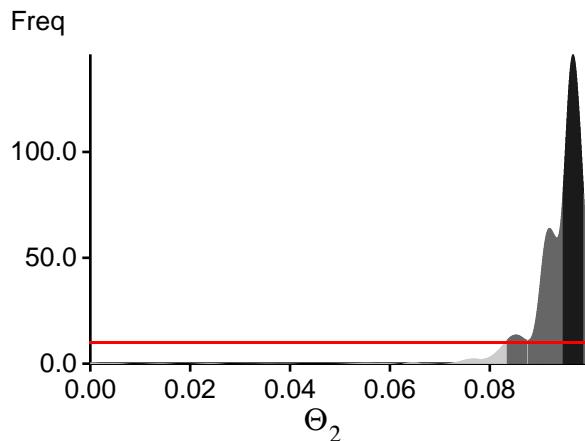
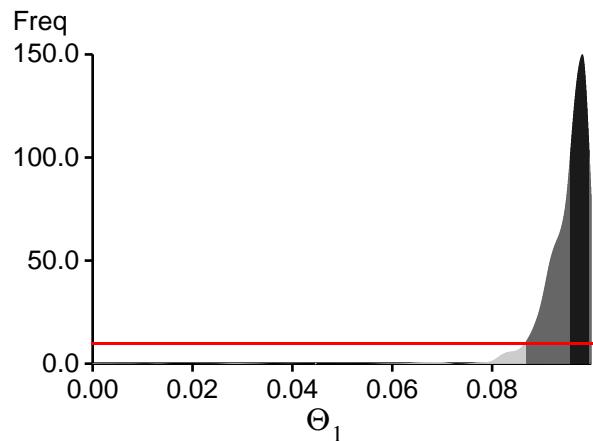
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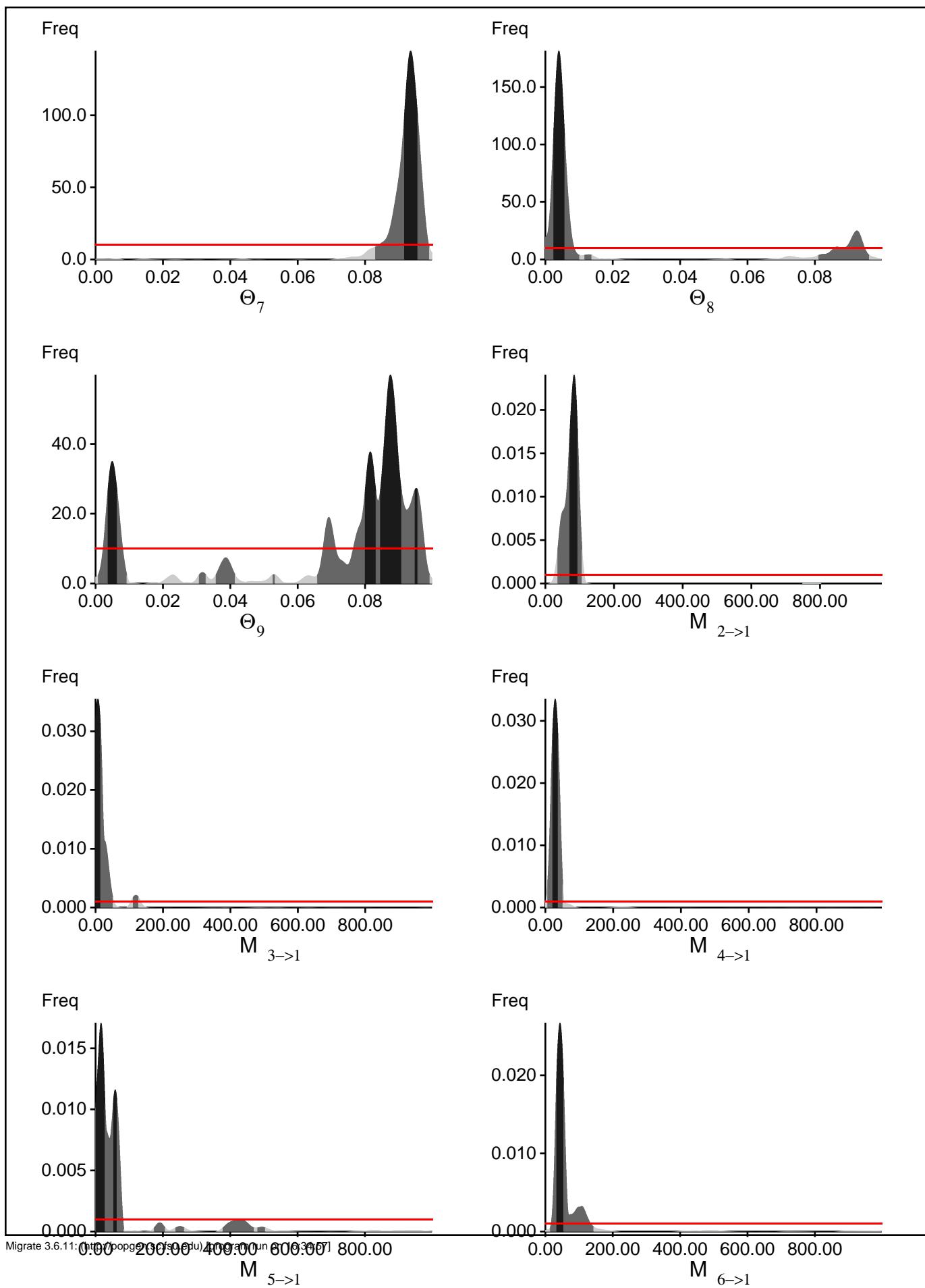
Beerli P., 2006. Comparison of Bayesian and maximum-likelihood inference of population genetic parameters. *Bioinformatics* 22:341-345

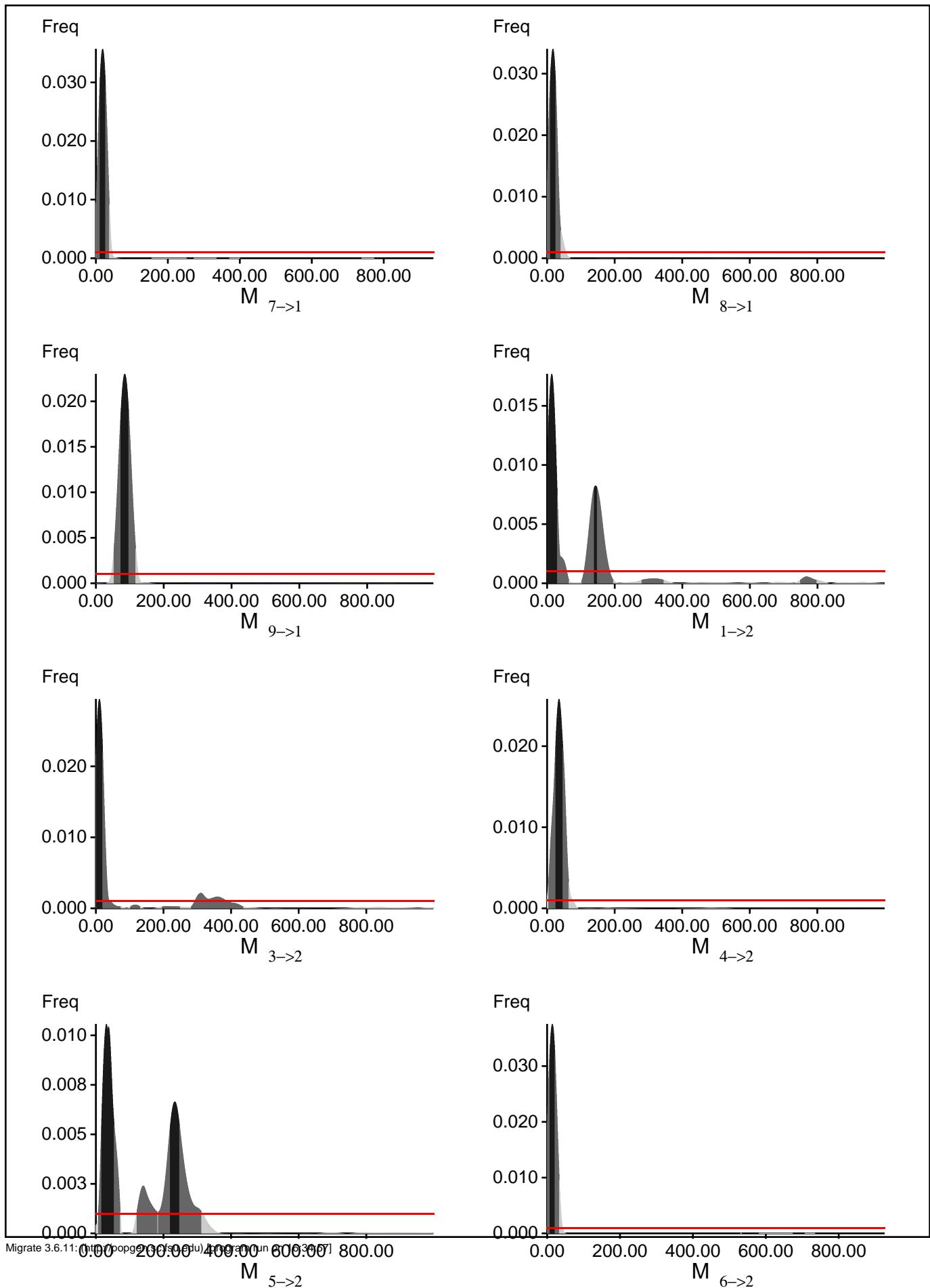
Beerli P., 2007. Estimation of the population scaled mutation rate from microsatellite data, *Genetics*, 177:1967-1968.

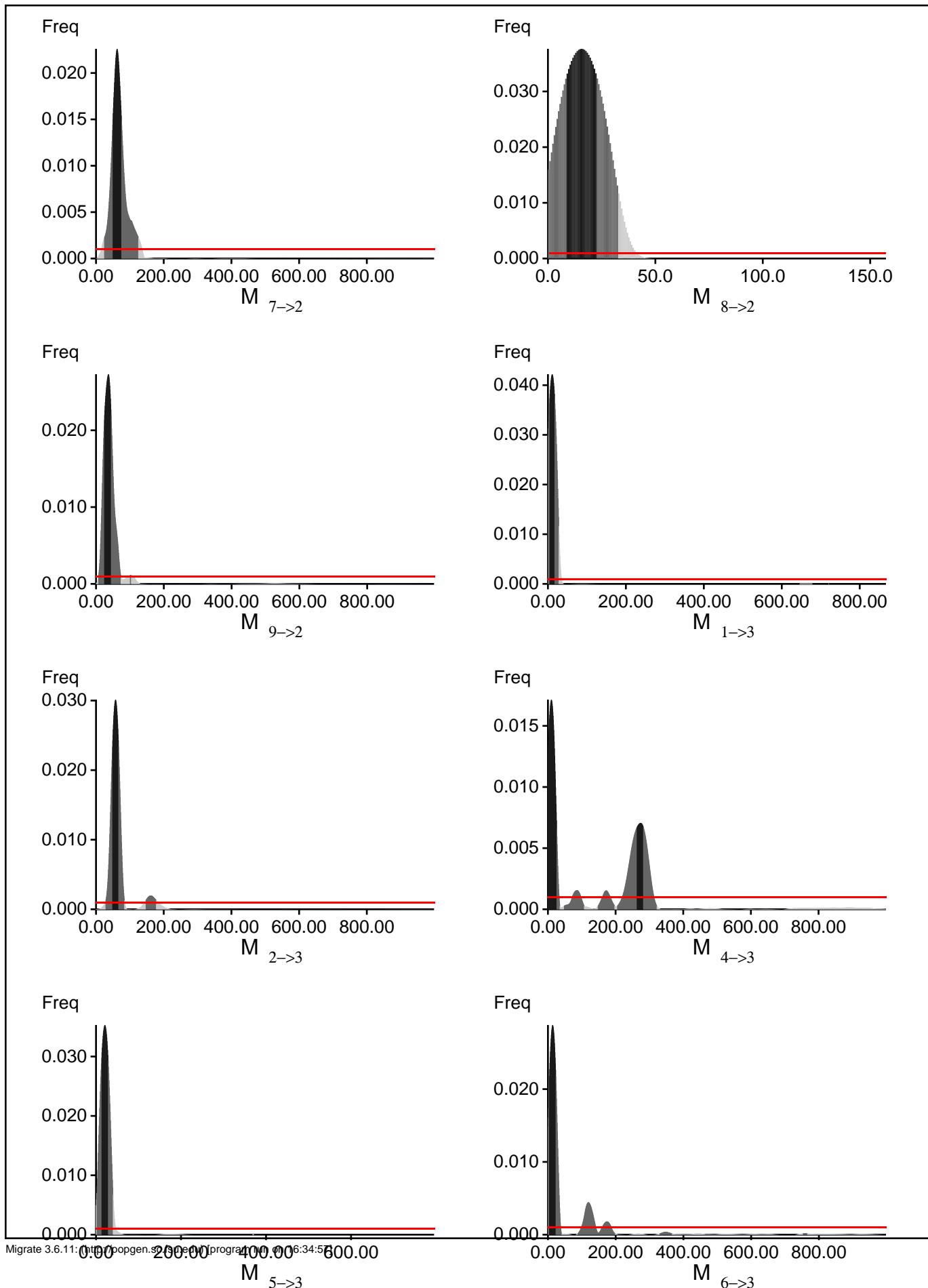
Beerli P., 2009. How to use MIGRATE or why are Markov chain Monte Carlo programs difficult to use? In *Population Genetics for Animal Conservation*, G. Bertorelle, M. W. Bruford, H. C. Hauffe, A. Rizzoli, and C. Vernesi, eds., vol. 17 of *Conservation Biology*, Cambridge University Press, Cambridge UK,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

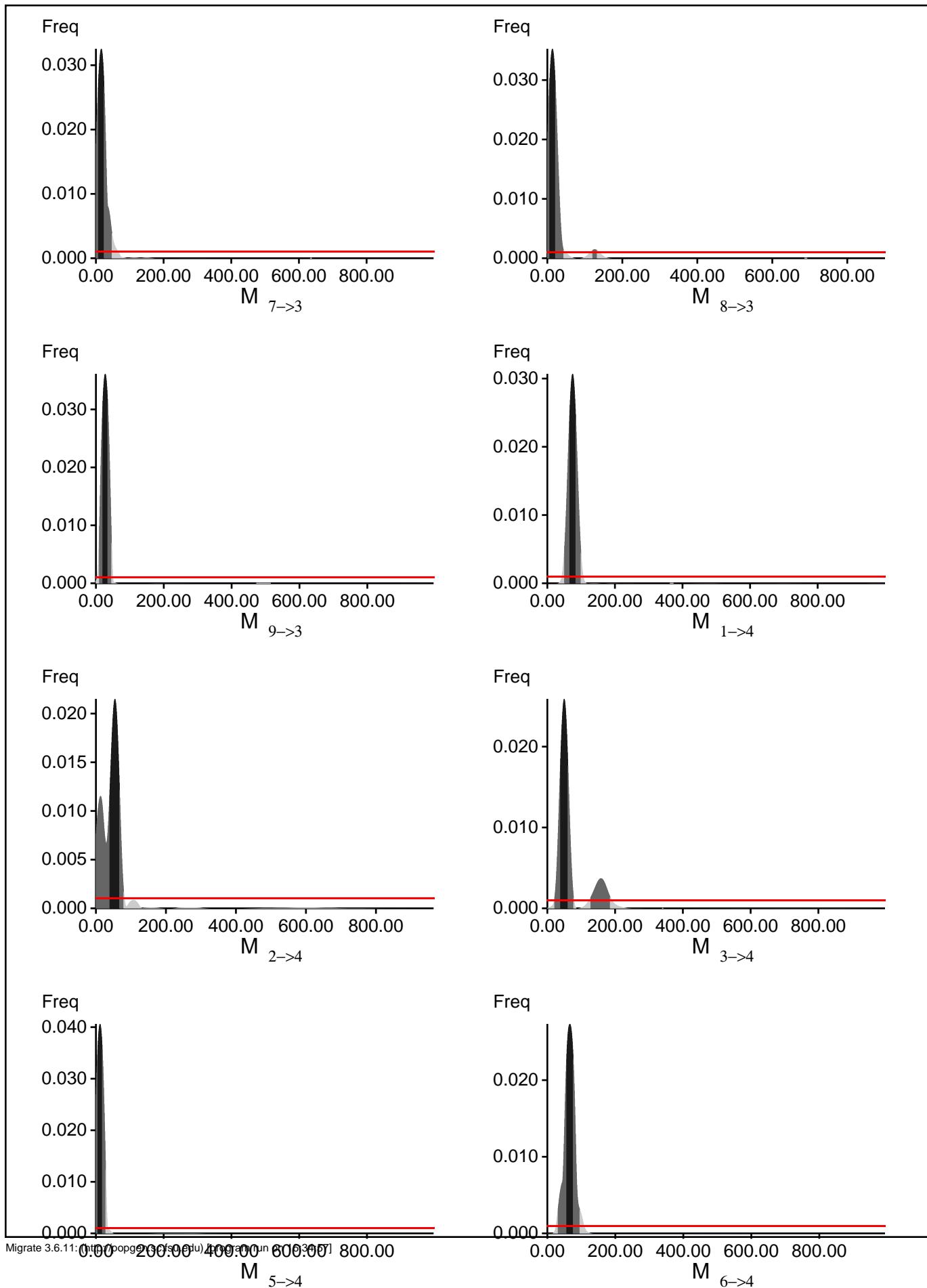
Bayesian Analysis: Posterior distribution over all loci

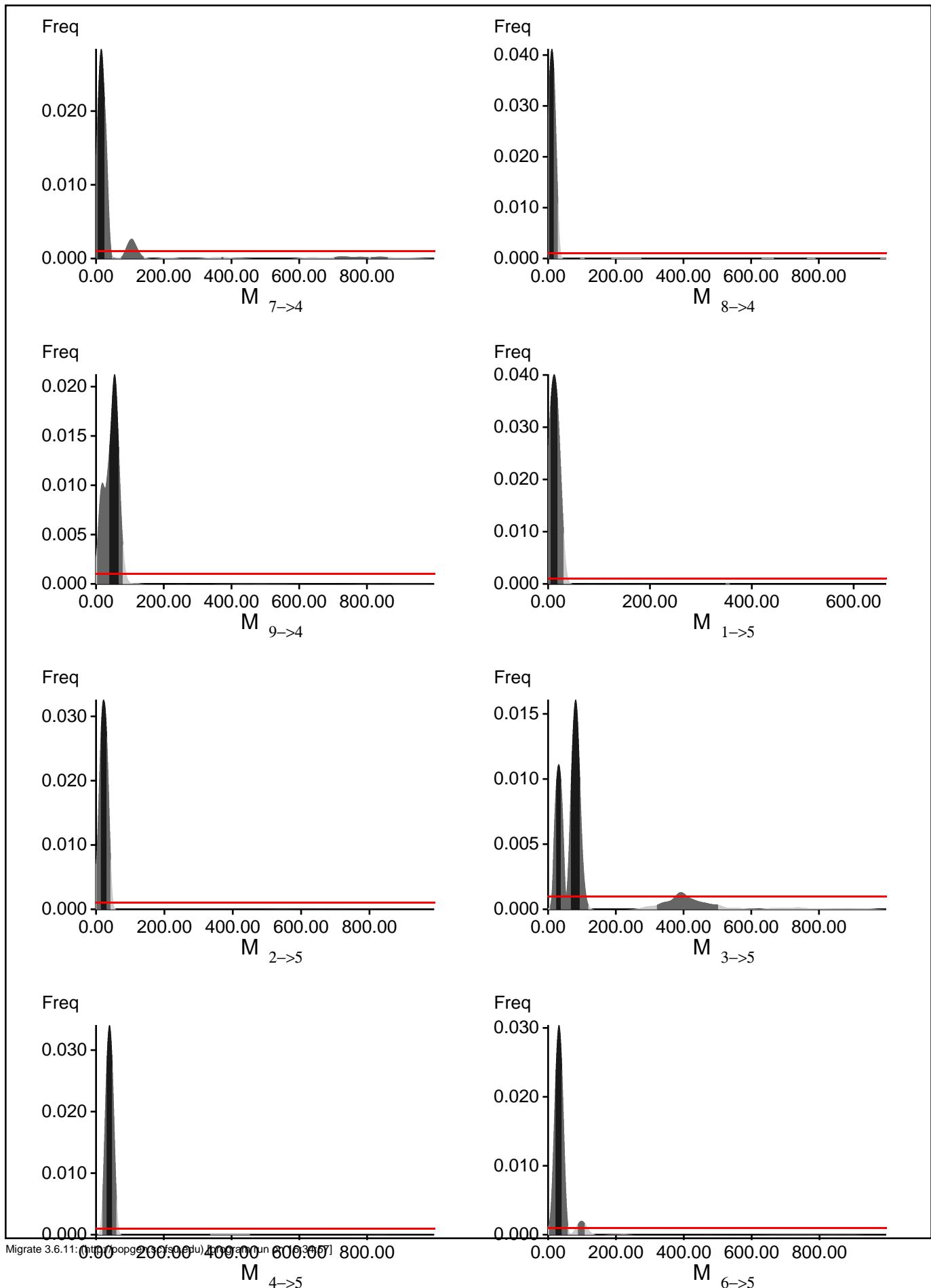


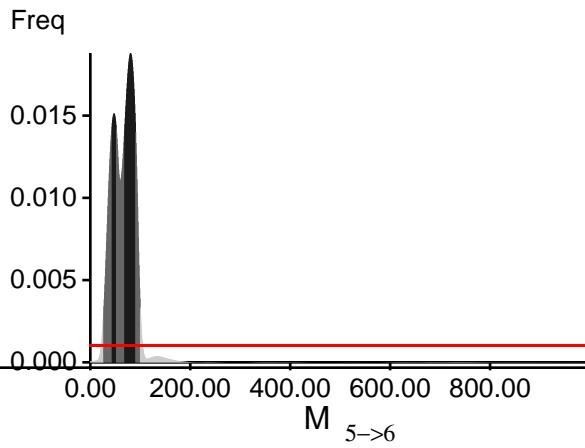
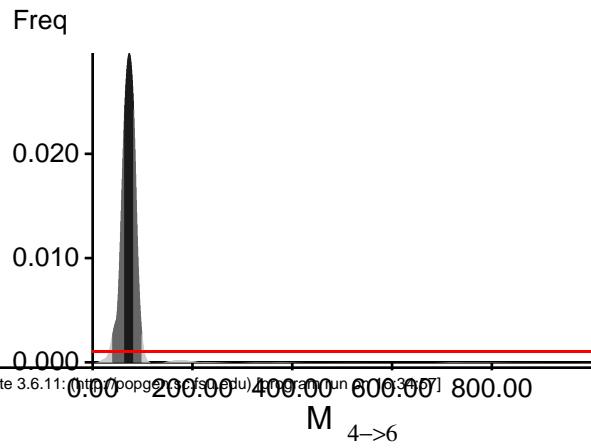
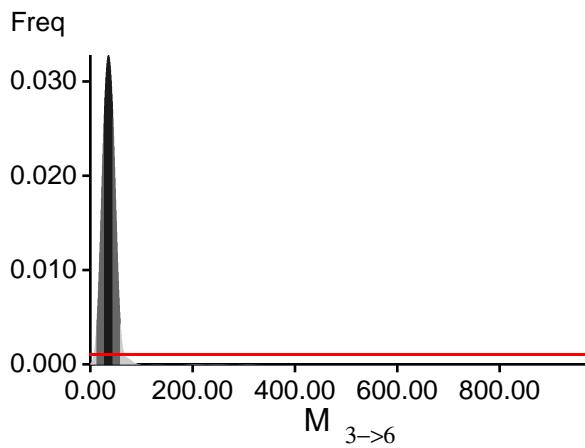
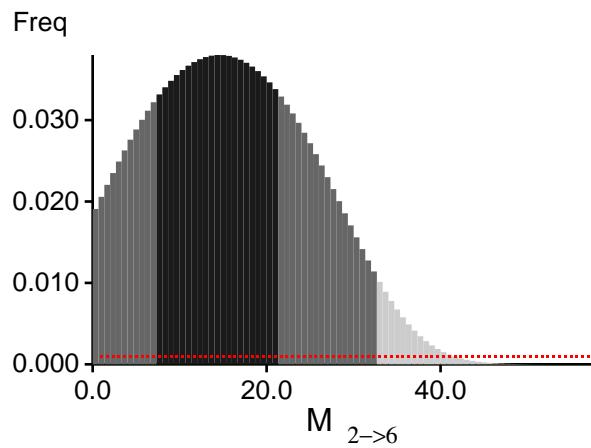
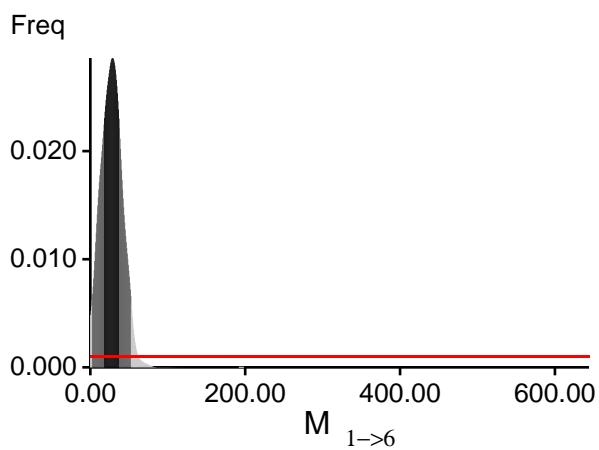
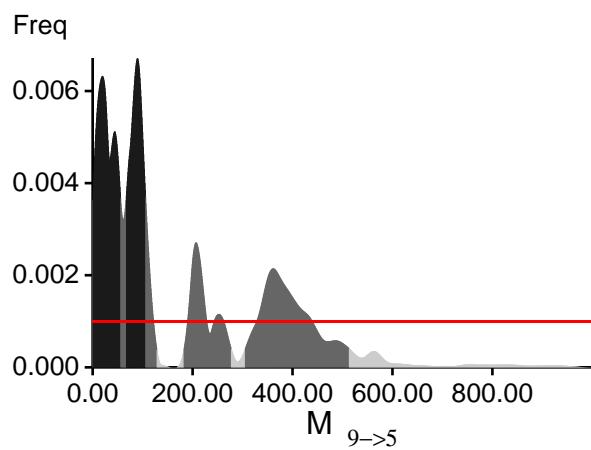
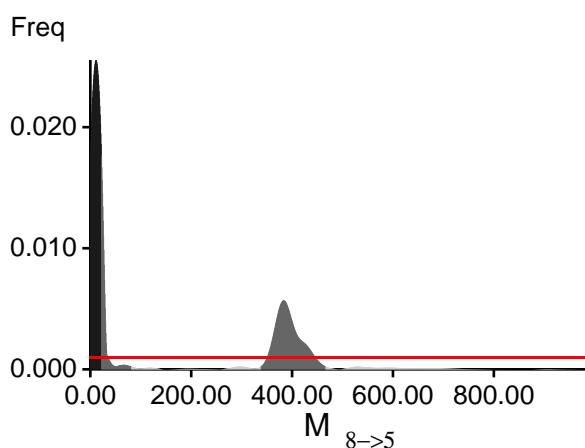
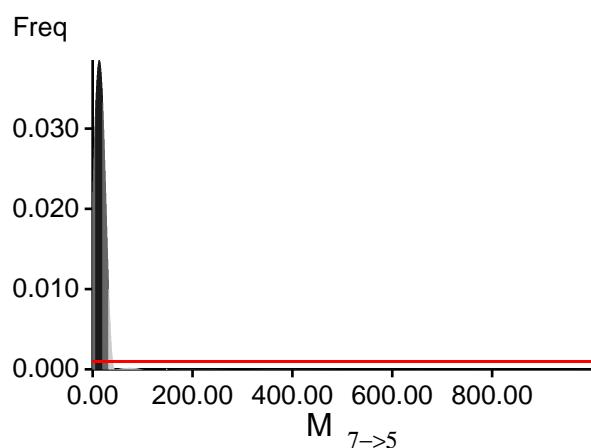


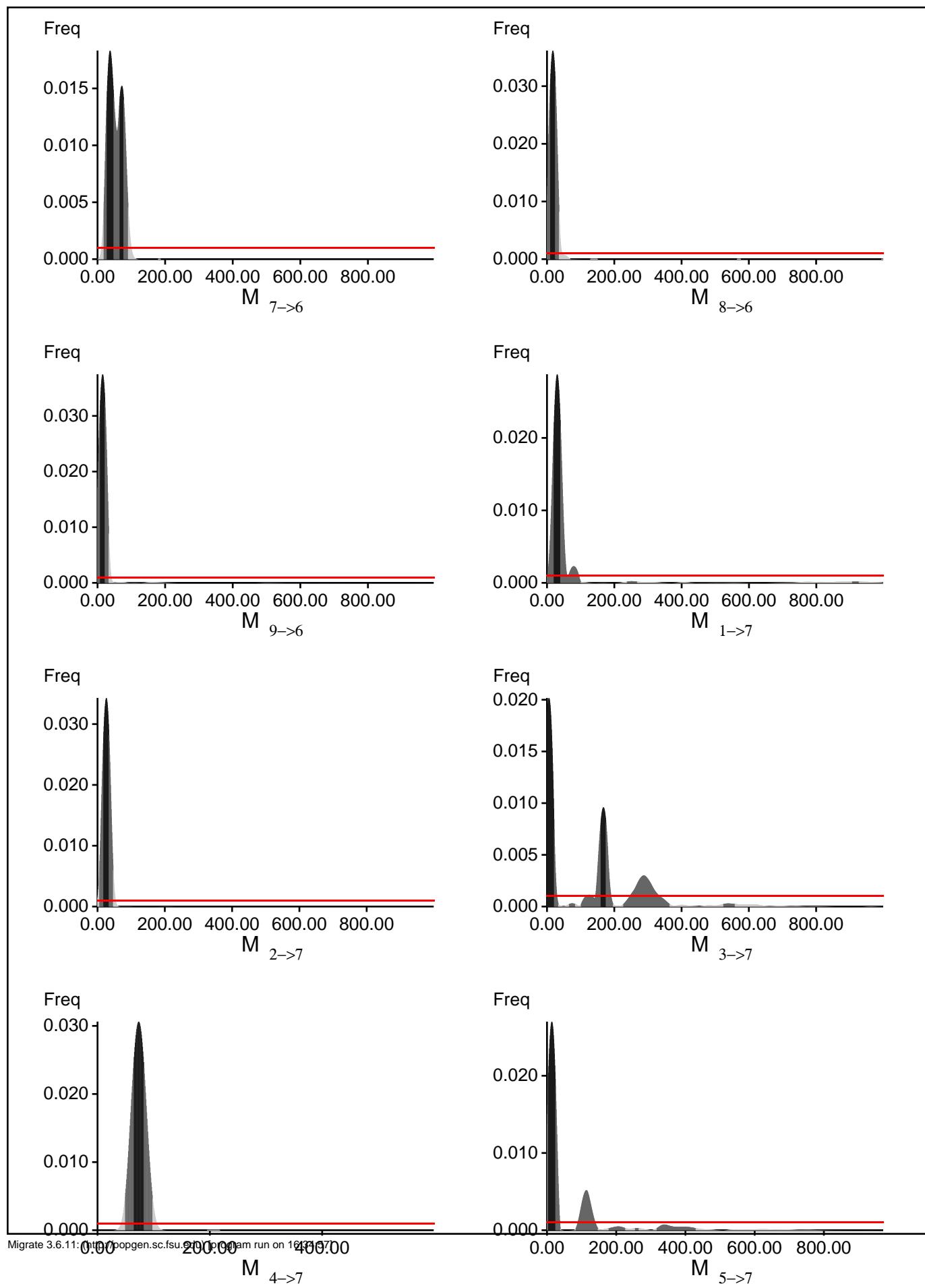


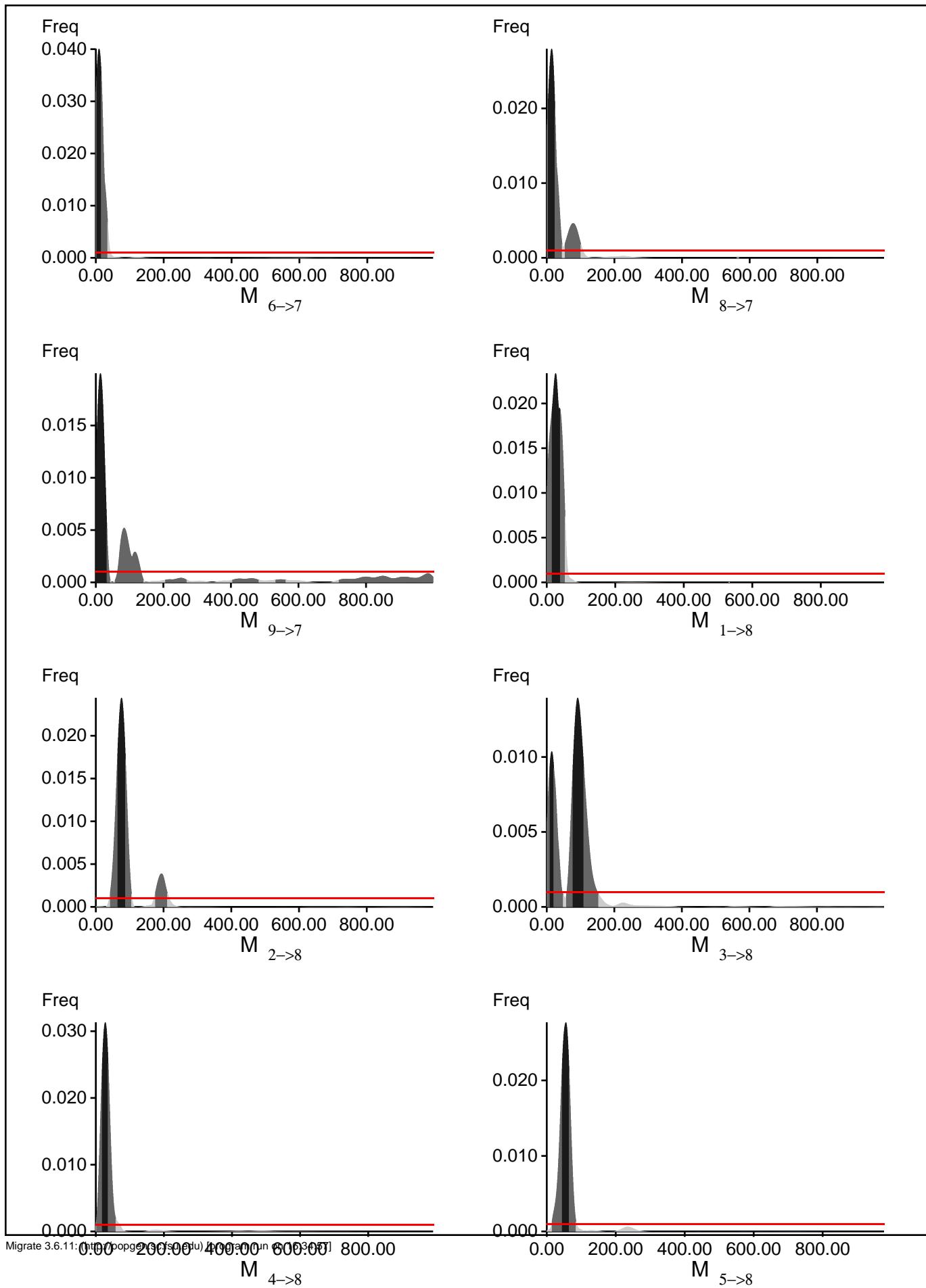


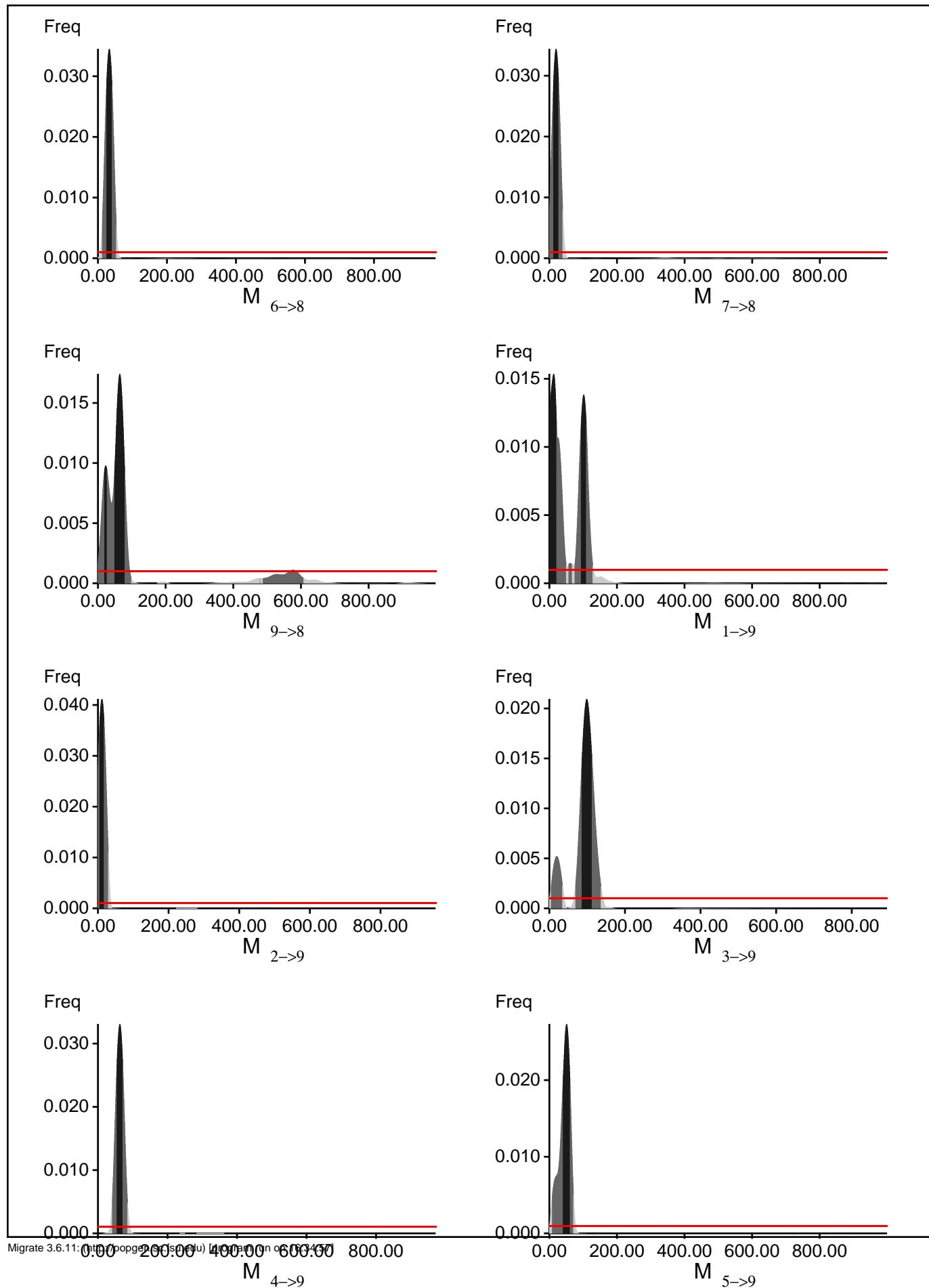


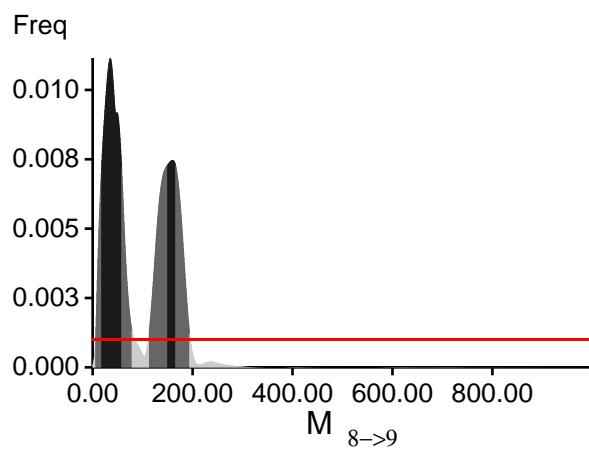
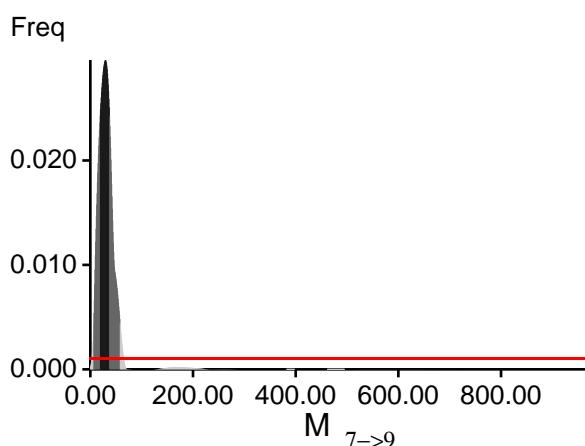
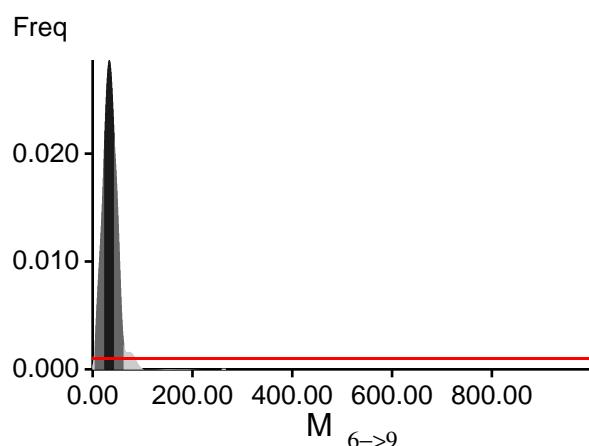












Log-Probability of the data given the model (marginal likelihood)

Use this value for Bayes factor calculations:

$BF = \text{Exp}[\ln(\text{Prob}(D | \text{thisModel})) - \ln(\text{Prob}(D | \text{otherModel}))]$
 or as $LBF = 2(\ln(\text{Prob}(D | \text{thisModel})) - \ln(\text{Prob}(D | \text{otherModel})))$
 shows the support for thisModel]

Locus	Raw thermodynamic score(1a)	Bezier approximation score(1b)	Harmonic mean(2)
1	—	—	-82.06
2	—	—	-123.59
3	—	—	-86.98
4	—	—	-39.67
5	—	—	inf
6	—	—	-73.68
7	—	—	-59.71
8	—	—	-360.68
9	—	—	-104.43
All	—	—	inf

(1a, 1b and 2) are approximations to the marginal likelihood, make sure that the program run long enough!

(1a, 1b) and (2) should give similar results, in principle.

But (2) is overestimating the likelihood, it is presented for historical reasons and should not be used

(1a, 1b) needs heating with chains that span a temperature range of 1.0 to at least 100,000.

(1b) is using a Bezier-curve to get better approximations for runs with low number of heated chains

[Scaling factor = 470.160240

Citation suggestions:

Beerli P. and M. Palczewski, 2010. Unified framework to evaluate panmixia and migration direction among multiple sampling locations, Genetics, 185: 313-326.

Acceptance ratios for all parameters and the genealogies

Parameter	Accepted changes	Ratio
Θ_1	15815/27733	0.57026
Θ_2	16252/27955	0.58136
Θ_3	15776/28172	0.55999
Θ_4	16456/27710	0.59387
Θ_5	15840/27505	0.57590
Θ_6	14916/27937	0.53392
Θ_7	15802/27645	0.57160
Θ_8	14772/27888	0.52969
Θ_9	14238/27711	0.51380
$M_{2 \rightarrow 1}$	13156/27537	0.47776
$M_{3 \rightarrow 1}$	13533/27797	0.48685
$M_{4 \rightarrow 1}$	15925/27865	0.57151
$M_{5 \rightarrow 1}$	13293/27814	0.47792
$M_{6 \rightarrow 1}$	13912/27602	0.50402
$M_{7 \rightarrow 1}$	12267/27966	0.43864
$M_{8 \rightarrow 1}$	12867/27839	0.46219
$M_{9 \rightarrow 1}$	13337/27765	0.48035
$M_{1 \rightarrow 2}$	12058/28019	0.43035
$M_{3 \rightarrow 2}$	12770/28079	0.45479
$M_{4 \rightarrow 2}$	13663/27731	0.49270
$M_{5 \rightarrow 2}$	11982/27919	0.42917
$M_{6 \rightarrow 2}$	12811/28129	0.45544
$M_{7 \rightarrow 2}$	12990/27957	0.46464
$M_{8 \rightarrow 2}$	12839/27776	0.46223
$M_{9 \rightarrow 2}$	13061/27976	0.46686
$M_{1 \rightarrow 3}$	14504/27596	0.52558
$M_{2 \rightarrow 3}$	14849/27723	0.53562
$M_{4 \rightarrow 3}$	14762/27714	0.53265
$M_{5 \rightarrow 3}$	14161/27722	0.51082
$M_{6 \rightarrow 3}$	13761/27696	0.49686
$M_{7 \rightarrow 3}$	14431/27543	0.52394
$M_{8 \rightarrow 3}$	14066/27709	0.50763
$M_{9 \rightarrow 3}$	14155/27876	0.50778
$M_{1 \rightarrow 4}$	13930/27966	0.49810
$M_{2 \rightarrow 4}$	14732/27741	0.53106
$M_{3 \rightarrow 4}$	14822/27693	0.53523
$M_{5 \rightarrow 4}$	15969/27635	0.57785

M	6->4	14066/27598	0.50967
M	7->4	12488/27539	0.45347
M	8->4	13677/27891	0.49037
M	9->4	13876/27533	0.50398
M	1->5	12870/27975	0.46005
M	2->5	14768/27764	0.53191
M	3->5	13605/27838	0.48872
M	4->5	13858/27724	0.49986
M	6->5	13472/27562	0.48879
M	7->5	12993/27737	0.46844
M	8->5	14241/27566	0.51661
M	9->5	14378/27659	0.51983
M	1->6	13758/27427	0.50162
M	2->6	15297/27610	0.55404
M	3->6	13761/27677	0.49720
M	4->6	14680/27904	0.52609
M	5->6	13466/27812	0.48418
M	7->6	15916/27834	0.57182
M	8->6	12496/27835	0.44893
M	9->6	12665/27584	0.45914
M	1->7	14653/27808	0.52693
M	2->7	14274/27525	0.51858
M	3->7	13044/27921	0.46718
M	4->7	15634/27801	0.56235
M	5->7	15415/27557	0.55939
M	6->7	15479/27890	0.55500
M	8->7	14147/27424	0.51586
M	9->7	14757/28015	0.52675
M	1->8	14949/28005	0.53380
M	2->8	14574/28061	0.51937
M	3->8	15085/27991	0.53892
M	4->8	16250/27858	0.58332
M	5->8	14972/27741	0.53971
M	6->8	14850/27589	0.53826
M	7->8	15312/27467	0.55747
M	9->8	15475/27620	0.56028
M	1->9	13612/28130	0.48390
M	2->9	14012/27751	0.50492
M	3->9	15280/27807	0.54950
M	4->9	14343/27711	0.51759
M	5->9	14234/27878	0.51058
M	6->9	13910/27808	0.50022
M	7->9	13758/27835	0.49427
M	8->9	14094/27955	0.50417
Genealogies		884150/2250142	0.39293

MCMC-Autocorrelation and Effective MCMC Sample Size

Parameter	Autocorrelation	Effective Sample Size
Θ_1	0.93862	1431.84
Θ_2	0.92863	1688.99
Θ_3	0.91790	1978.74
Θ_4	0.90569	2271.33
Θ_5	0.91257	2076.07
Θ_6	0.93473	1560.38
Θ_7	0.92454	1791.86
Θ_8	0.92257	1846.34
Θ_9	0.94171	1386.31
$M_{2 \rightarrow 1}$	0.95510	1040.20
$M_{3 \rightarrow 1}$	0.95781	979.55
$M_{4 \rightarrow 1}$	0.95493	1049.33
$M_{5 \rightarrow 1}$	0.95990	936.43
$M_{6 \rightarrow 1}$	0.95805	979.26
$M_{7 \rightarrow 1}$	0.95792	982.75
$M_{8 \rightarrow 1}$	0.95153	1126.97
$M_{9 \rightarrow 1}$	0.95460	1051.98
$M_{1 \rightarrow 2}$	0.95451	1061.63
$M_{3 \rightarrow 2}$	0.96446	824.57
$M_{4 \rightarrow 2}$	0.95544	1037.01
$M_{5 \rightarrow 2}$	0.96698	765.27
$M_{6 \rightarrow 2}$	0.93850	1448.96
$M_{7 \rightarrow 2}$	0.97133	660.14
$M_{8 \rightarrow 2}$	0.95616	1026.70
$M_{9 \rightarrow 2}$	0.96048	914.37
$M_{1 \rightarrow 3}$	0.95396	1079.34
$M_{2 \rightarrow 3}$	0.95873	965.63
$M_{4 \rightarrow 3}$	0.95230	1116.28
$M_{5 \rightarrow 3}$	0.95791	976.30
$M_{6 \rightarrow 3}$	0.96140	899.94
$M_{7 \rightarrow 3}$	0.95432	1077.19
$M_{8 \rightarrow 3}$	0.94903	1190.45
$M_{9 \rightarrow 3}$	0.95455	1059.62
$M_{1 \rightarrow 4}$	0.96119	894.64
$M_{2 \rightarrow 4}$	0.95187	1132.77
$M_{3 \rightarrow 4}$	0.96232	871.76
$M_{5 \rightarrow 4}$	0.95171	1132.08

M	6->4	0.95885	956.11
M	7->4	0.96497	807.95
M	8->4	0.96523	801.16
M	9->4	0.97139	658.58
M	1->5	0.96432	823.94
M	2->5	0.96040	920.71
M	3->5	0.96063	912.51
M	4->5	0.94609	1265.59
M	6->5	0.96975	696.11
M	7->5	0.95520	1041.46
M	8->5	0.97255	630.25
M	9->5	0.96154	890.97
M	1->6	0.94192	1375.27
M	2->6	0.94473	1321.46
M	3->6	0.95043	1157.71
M	4->6	0.95194	1129.13
M	5->6	0.95115	1141.36
M	7->6	0.95311	1129.17
M	8->6	0.97019	685.44
M	9->6	0.95212	1117.12
M	1->7	0.97233	636.36
M	2->7	0.97023	685.65
M	3->7	0.96958	702.71
M	4->7	0.95350	1084.28
M	5->7	0.97172	652.89
M	6->7	0.97359	606.76
M	8->7	0.96825	742.97
M	9->7	0.97691	528.05
M	1->8	0.94937	1183.84
M	2->8	0.96603	791.70
M	3->8	0.96154	905.62
M	4->8	0.96446	823.83
M	5->8	0.94922	1183.32
M	6->8	0.95289	1113.95
M	7->8	0.96905	710.91
M	9->8	0.95278	1107.85
M	1->9	0.95459	1056.07
M	2->9	0.96777	744.59
M	3->9	0.96962	703.56
M	4->9	0.94587	1283.62
M	5->9	0.95291	1098.52
M	6->9	0.95939	947.32
M	7->9	0.95605	1028.59
M	8->9	0.95166	1155.57
Ln[Prob(D G)]		0.99116	200.12

Potential Problems

This section reports potential problems with your run, but such reporting is often not very accurate. With many parameters in a multilocus analysis, it is very common that some parameters for some loci will not be very informative, triggering suggestions (for example to increase the prior range) that are not sensible. This suggestion tool will improve with time, therefore do not blindly follow its suggestions. If some parameters are flagged, inspect the tables carefully and judge whether an action is required. For example, if you run a Bayesian inference with sequence data, for macroscopic 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 routes 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.

Param 1 (Locus 1): Upper prior boundary seems too low!
Param 2 (Locus 1): Upper prior boundary seems too low!
Param 3 (Locus 1): Upper prior boundary seems too low!
Param 4 (Locus 1): Upper prior boundary seems too low!
Param 6 (Locus 1): Upper prior boundary seems too low!
Param 7 (Locus 1): Upper prior boundary seems too low!
Param 1 (Locus 2): Upper prior boundary seems too low!
Param 2 (Locus 2): Upper prior boundary seems too low!
Param 3 (Locus 2): Upper prior boundary seems too low!
Param 4 (Locus 2): Upper prior boundary seems too low!
Param 5 (Locus 2): Upper prior boundary seems too low!
Param 6 (Locus 2): Upper prior boundary seems too low!
Param 7 (Locus 2): Upper prior boundary seems too low!
Param 1 (Locus 3): Upper prior boundary seems too low!
Param 2 (Locus 3): Upper prior boundary seems too low!
Param 4 (Locus 3): Upper prior boundary seems too low!
Param 5 (Locus 3): Upper prior boundary seems too low!
Param 6 (Locus 3): Upper prior boundary seems too low!
Param 7 (Locus 3): Upper prior boundary seems too low!
Param 8 (Locus 3): Upper prior boundary seems too low!
Param 9 (Locus 3): Upper prior boundary seems too low!
Param 20 (Locus 3): Upper prior boundary seems too low!
Param 22 (Locus 3): Upper prior boundary seems too low!
Param 1 (Locus 4): Upper prior boundary seems too low!
Param 3 (Locus 4): Upper prior boundary seems too low!
Param 4 (Locus 4): Upper prior boundary seems too low!
Param 11 (Locus 4): Upper prior boundary seems too low!

Param 12 (Locus 4): Upper prior boundary seems too low!
Param 14 (Locus 4): Upper prior boundary seems too low!
Param 15 (Locus 4): Upper prior boundary seems too low!
Param 34 (Locus 4): Upper prior boundary seems too low!
Param 45 (Locus 4): Upper prior boundary seems too low!
Param 47 (Locus 4): Upper prior boundary seems too low!
Param 65 (Locus 4): Upper prior boundary seems too low!
Param 6 (Locus 5): Upper prior boundary seems too low!
Param 7 (Locus 5): Upper prior boundary seems too low!
Param 10 (Locus 5): Upper prior boundary seems too low!
Param 12 (Locus 5): Upper prior boundary seems too low!
Param 18 (Locus 5): Upper prior boundary seems too low!
Param 21 (Locus 5): Upper prior boundary seems too low!
Param 23 (Locus 5): Upper prior boundary seems too low!
Param 24 (Locus 5): Upper prior boundary seems too low!
Param 27 (Locus 5): Upper prior boundary seems too low!
Param 30 (Locus 5): Upper prior boundary seems too low!
Param 31 (Locus 5): Upper prior boundary seems too low!
Param 34 (Locus 5): Upper prior boundary seems too low!
Param 36 (Locus 5): Upper prior boundary seems too low!
Param 37 (Locus 5): Upper prior boundary seems too low!
Param 39 (Locus 5): Upper prior boundary seems too low!
Param 40 (Locus 5): Upper prior boundary seems too low!
Param 41 (Locus 5): Upper prior boundary seems too low!
Param 42 (Locus 5): Upper prior boundary seems too low!
Param 43 (Locus 5): Upper prior boundary seems too low!
Param 44 (Locus 5): Upper prior boundary seems too low!
Param 45 (Locus 5): Upper prior boundary seems too low!
Param 51 (Locus 5): Upper prior boundary seems too low!
Param 55 (Locus 5): Upper prior boundary seems too low!
Param 56 (Locus 5): Upper prior boundary seems too low!
Param 62 (Locus 5): Upper prior boundary seems too low!
Param 65 (Locus 5): Upper prior boundary seems too low!
Param 66 (Locus 5): Upper prior boundary seems too low!
Param 68 (Locus 5): Upper prior boundary seems too low!
Param 73 (Locus 5): Upper prior boundary seems too low!
Param 75 (Locus 5): Upper prior boundary seems too low!
Param 77 (Locus 5): Upper prior boundary seems too low!
Param 78 (Locus 5): Upper prior boundary seems too low!
Param 15 (Locus 6): Upper prior boundary seems too low!
Param 30 (Locus 6): Upper prior boundary seems too low!
Param 33 (Locus 6): Upper prior boundary seems too low!
Param 45 (Locus 6): Upper prior boundary seems too low!
Param 46 (Locus 6): Upper prior boundary seems too low!
Param 63 (Locus 6): Upper prior boundary seems too low!

Param 77 (Locus 6): Upper prior boundary seems too low!
Param 1 (Locus 7): Upper prior boundary seems too low!
Param 2 (Locus 7): Upper prior boundary seems too low!
Param 3 (Locus 7): Upper prior boundary seems too low!
Param 28 (Locus 7): Upper prior boundary seems too low!
Param 45 (Locus 7): Upper prior boundary seems too low!
Param 46 (Locus 7): Upper prior boundary seems too low!
Param 58 (Locus 7): Upper prior boundary seems too low!
Param 65 (Locus 7): Upper prior boundary seems too low!
Param 67 (Locus 7): Upper prior boundary seems too low!
Param 73 (Locus 7): Upper prior boundary seems too low!
Param 1 (Locus 8): Upper prior boundary seems too low!
Param 2 (Locus 8): Upper prior boundary seems too low!
Param 3 (Locus 8): Upper prior boundary seems too low!
Param 4 (Locus 8): Upper prior boundary seems too low!
Param 5 (Locus 8): Upper prior boundary seems too low!
Param 6 (Locus 8): Upper prior boundary seems too low!
Param 7 (Locus 8): Upper prior boundary seems too low!
Param 8 (Locus 8): Upper prior boundary seems too low!
Param 9 (Locus 8): Upper prior boundary seems too low!
Param 1 (Locus 9): Upper prior boundary seems too low!
Param 3 (Locus 9): Upper prior boundary seems too low!
Param 4 (Locus 9): Upper prior boundary seems too low!
Param 5 (Locus 9): Upper prior boundary seems too low!
Param 6 (Locus 9): Upper prior boundary seems too low!
Param 7 (Locus 9): Upper prior boundary seems too low!
Param 8 (Locus 9): Upper prior boundary seems too low!
Param 9 (Locus 9): Upper prior boundary seems too low!
Param 1 (all loci): Upper prior boundary seems too low!
Param 2 (all loci): Upper prior boundary seems too low!
Param 3 (all loci): Upper prior boundary seems too low!
Param 4 (all loci): Upper prior boundary seems too low!
Param 5 (all loci): Upper prior boundary seems too low!
Param 6 (all loci): Upper prior boundary seems too low!
Param 7 (all loci): Upper prior boundary seems too low!
Param 9 (all loci): Upper prior boundary seems too low!