

# 18. Bayesian evrimsel analizi

BEAUti

Data Taxa Model Priors Operators MCMC

Clear Dates Guess Dates Dates specified as Years Since some time in the past

Name	Date	Height	Sequence
NYCH09@93	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
SE05@91	0	0	ACCTCACCAGGATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
BE11600@94	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
BE15471@97	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
SE03@91	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
MAD1@93	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
BE1061@00	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
BE64@01	0	0	ACCTTACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
BE14536@98	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
BIR6190@89	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
WV12342@84	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
BE933@88	0	0	ACCTGACCAGAAATCCCAGCTTGAATCAGCTTCTTCAATCTGTCGAAACTACAT
BE156@84	0	0	ACCTGACTCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
S2@76	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
BE004@02	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
SE02@98	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
BE11@01	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
BE332@02	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
MON2@88	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
BE11465@94	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
BE12895@95	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCTCCAATCTGTCGAAACTACAT
SE10@91	0	0	ACCTCACCAGAAATCCCAGCTTGAATCAGCTTCCAATCTGTCGAAACTACAT

Translation: None  ignore data - sample prior only

Alignment: 35 taxa, 629 sites

Generate BEAST File...

Guess Dates

The date is given by a numerical field in the taxon label that is:

Defined by its order

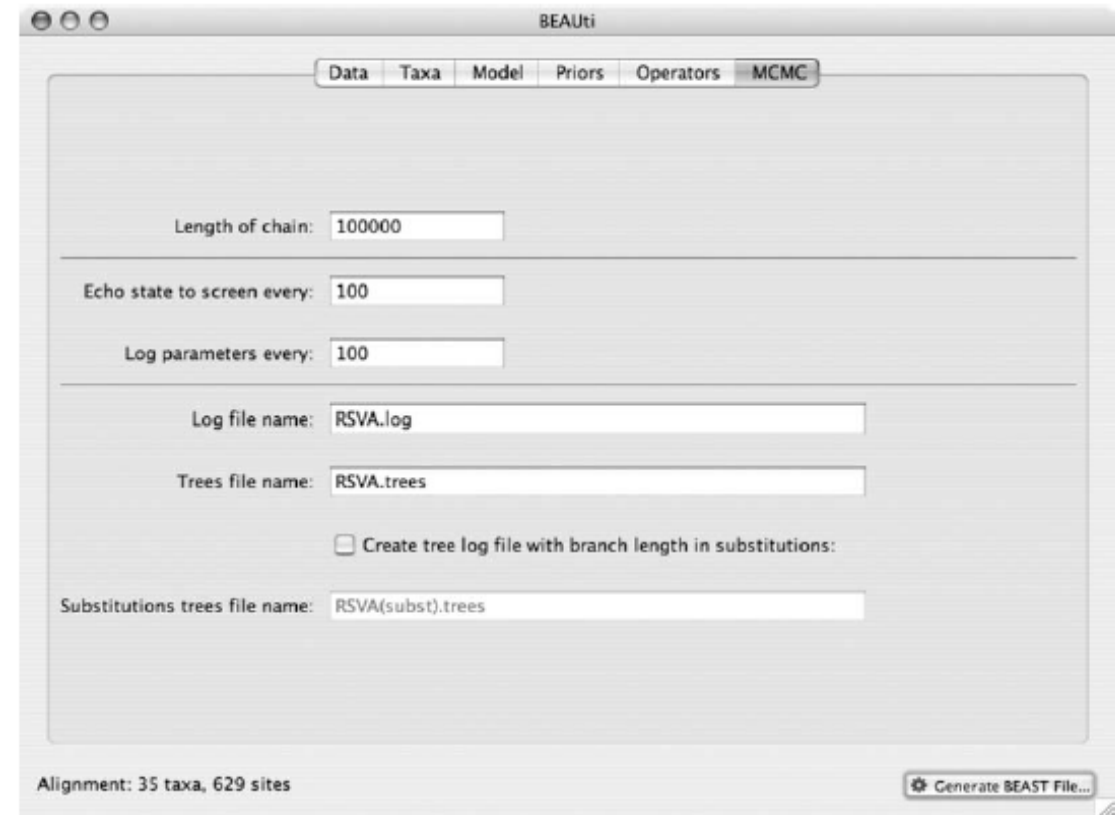
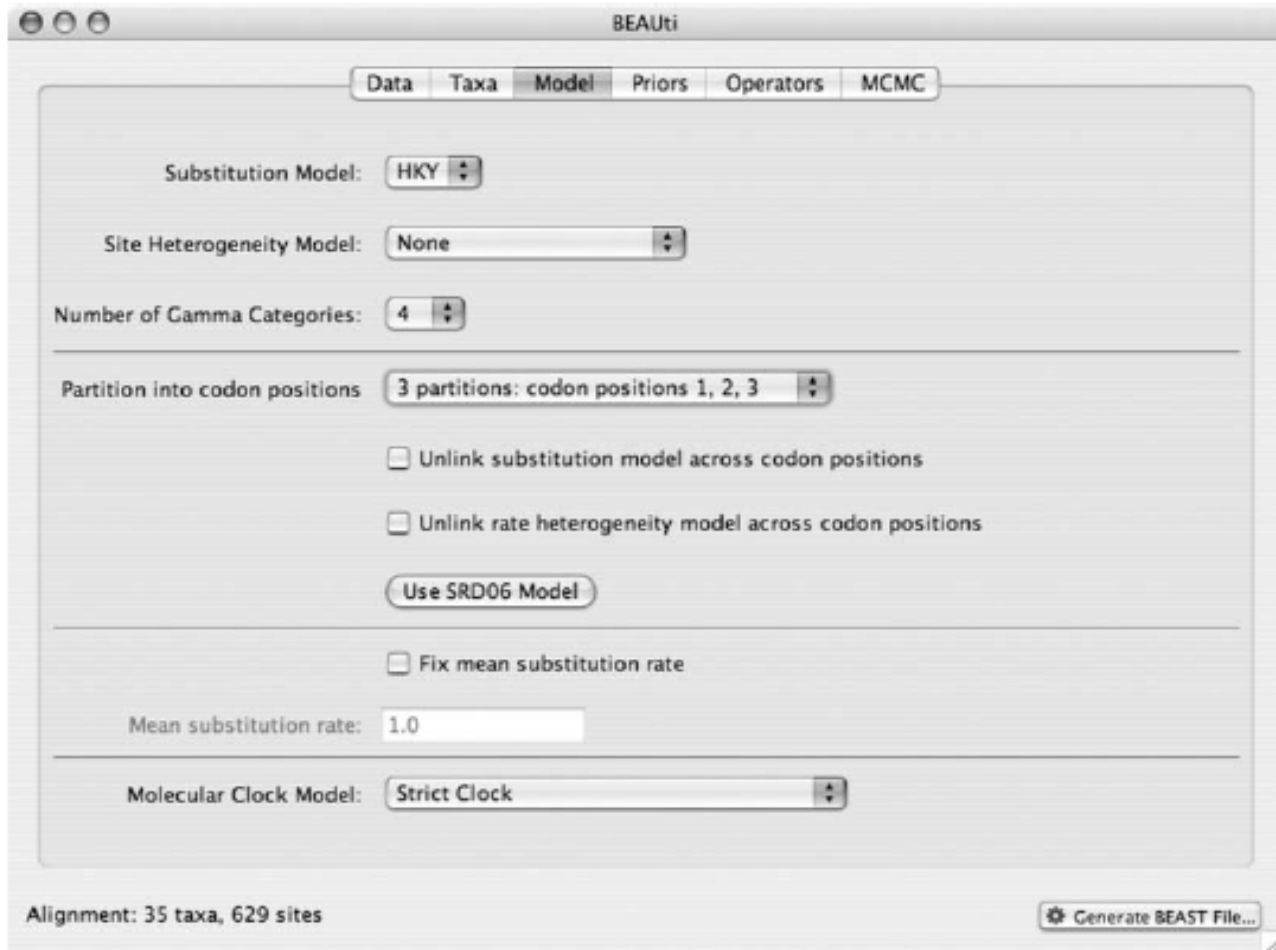
Defined by a prefix

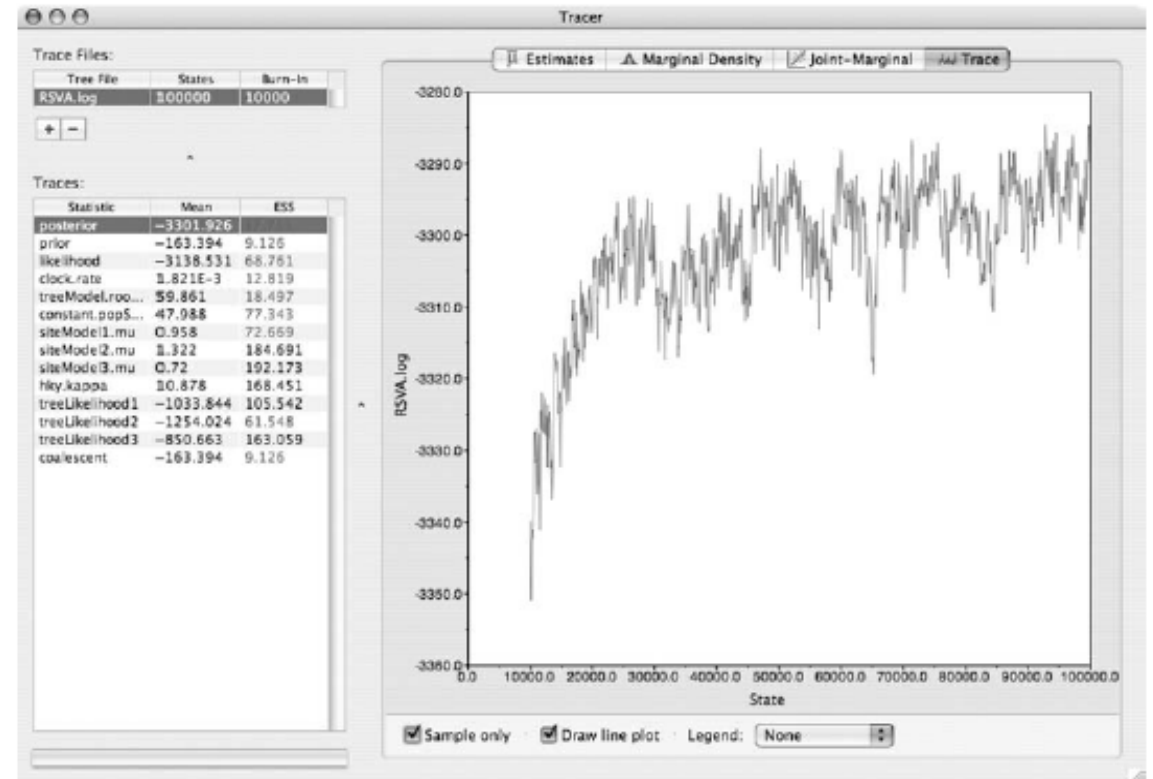
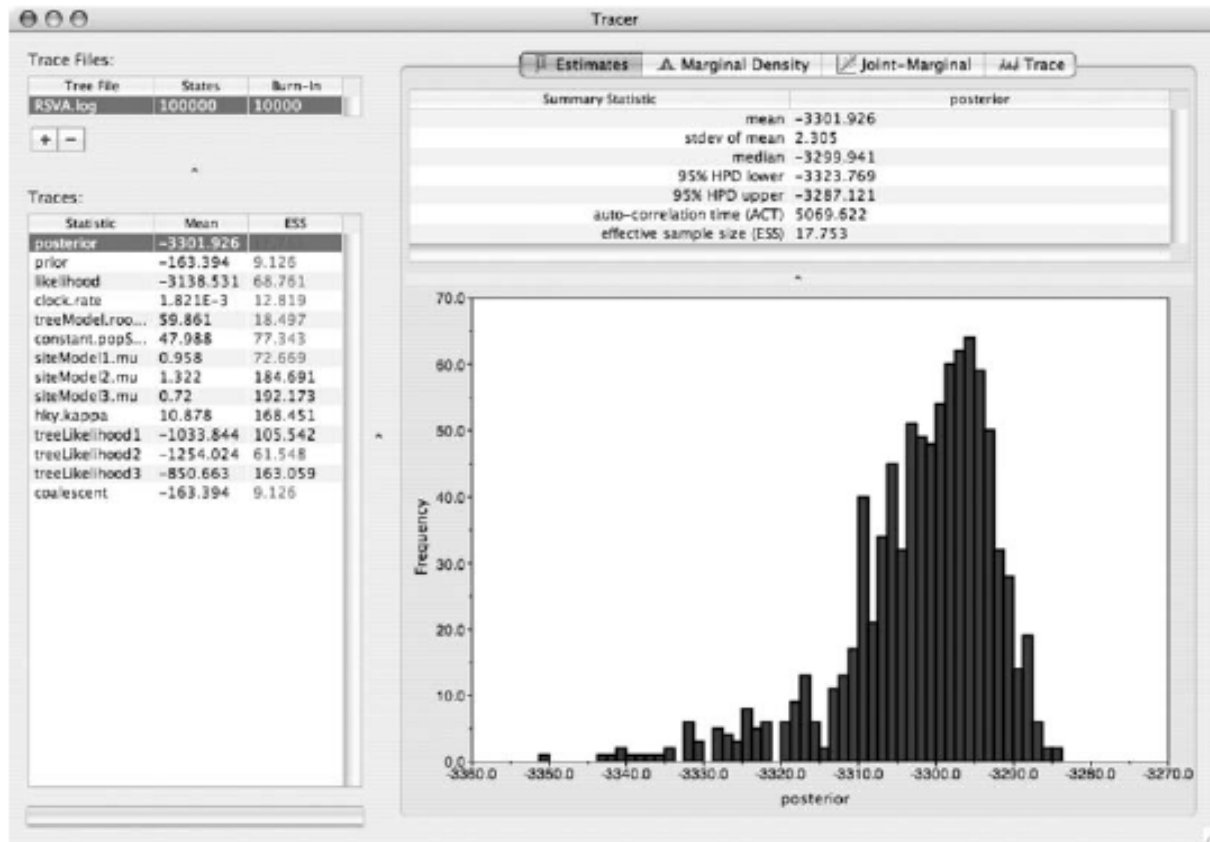
Add the following value to each:

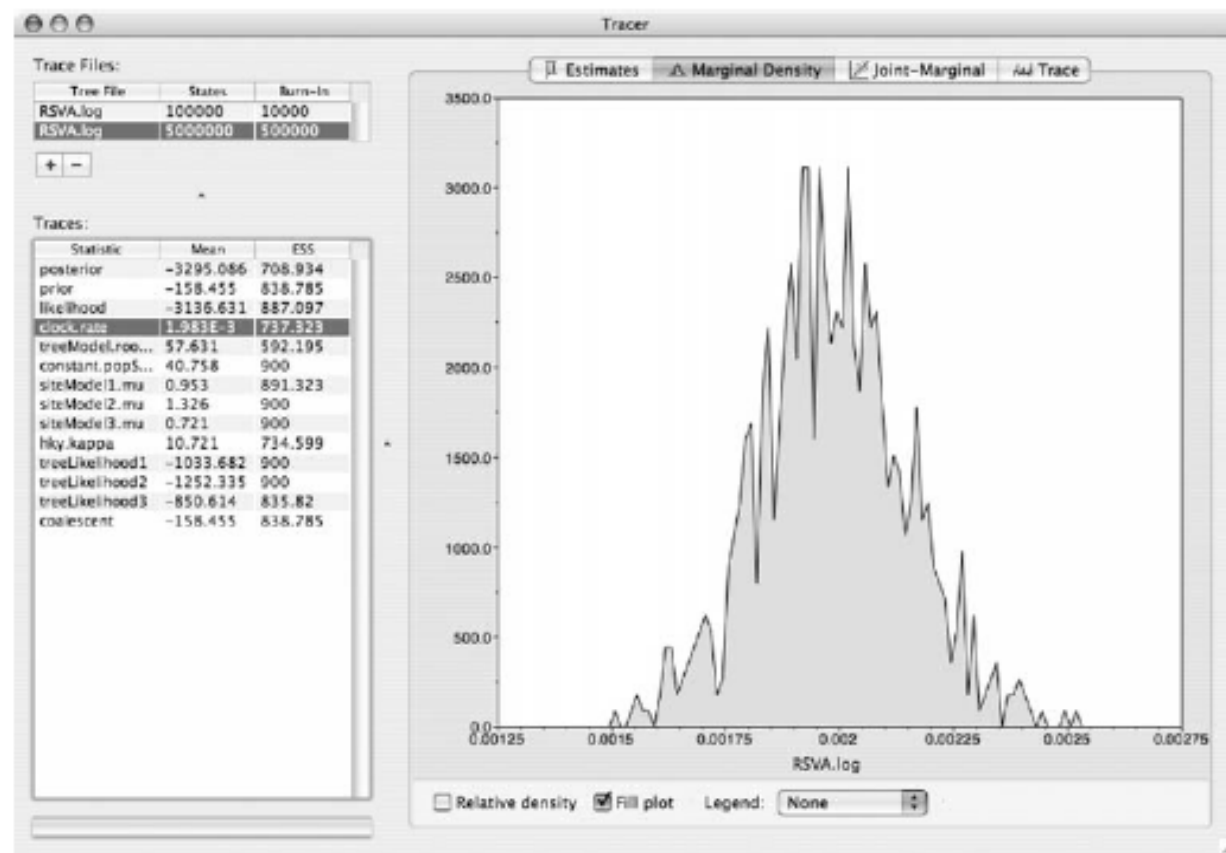
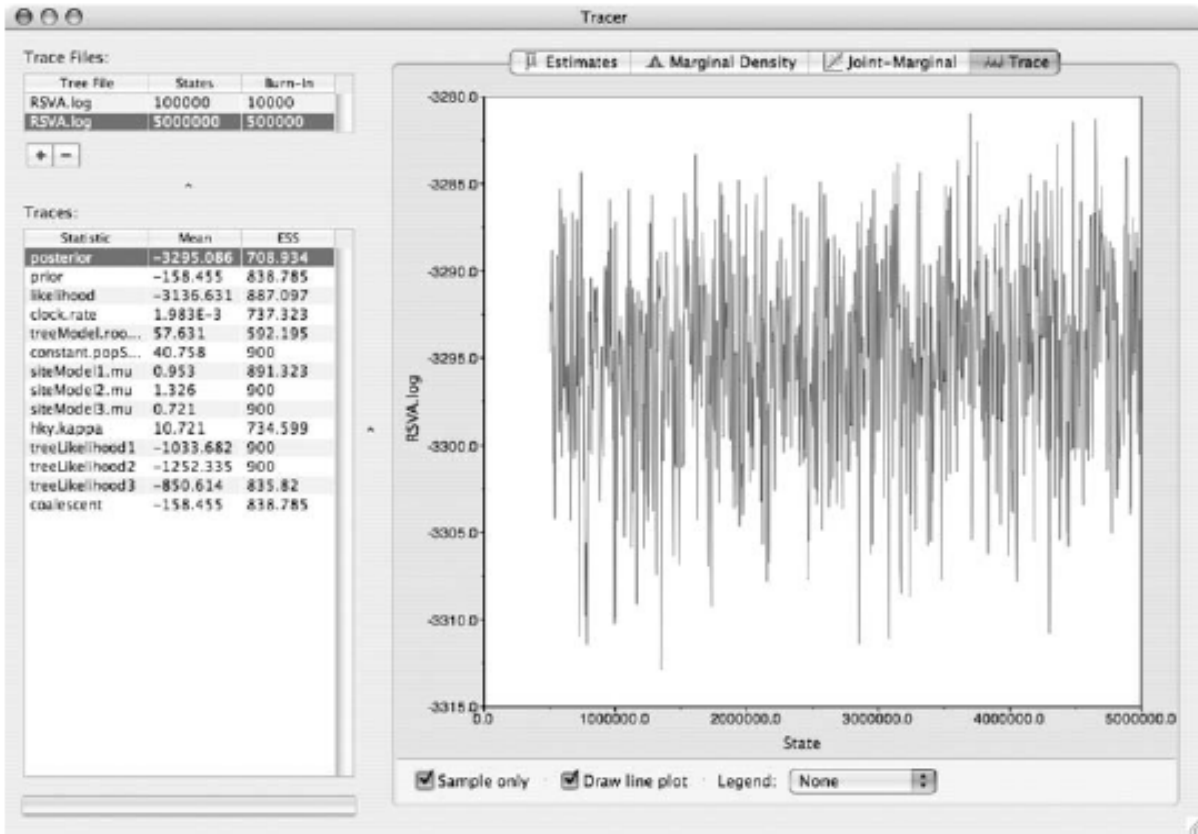
...unless less than:

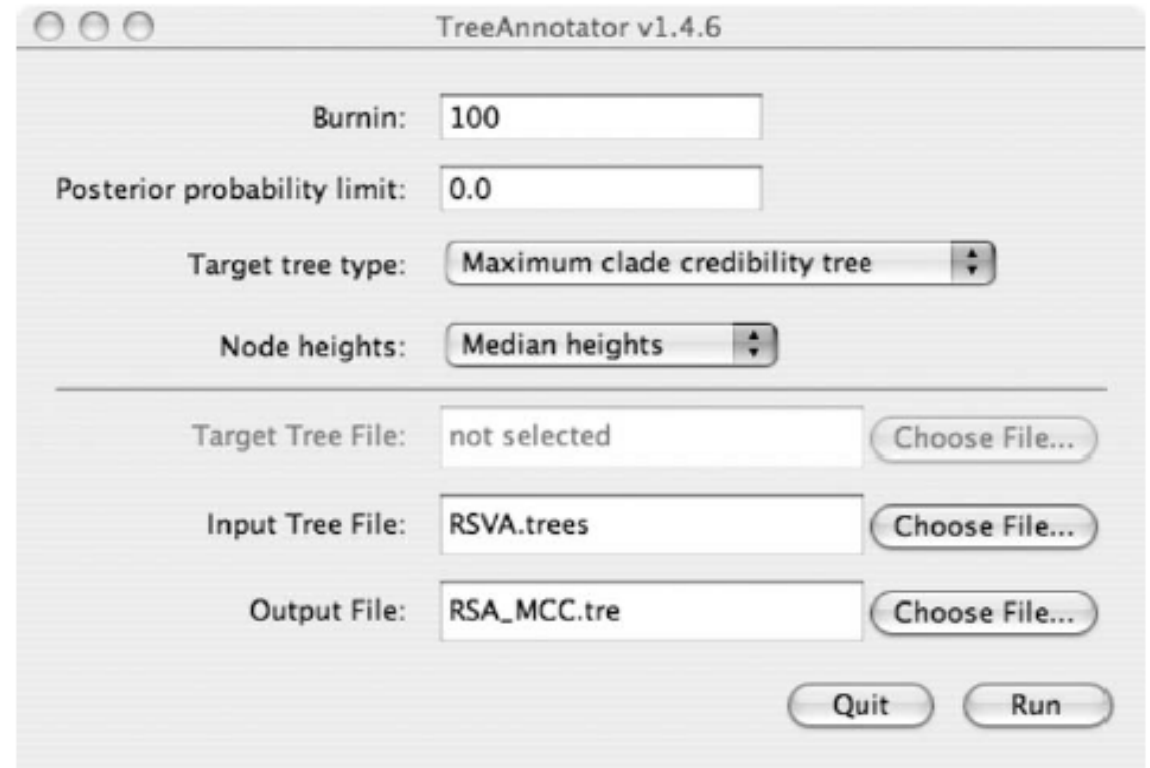
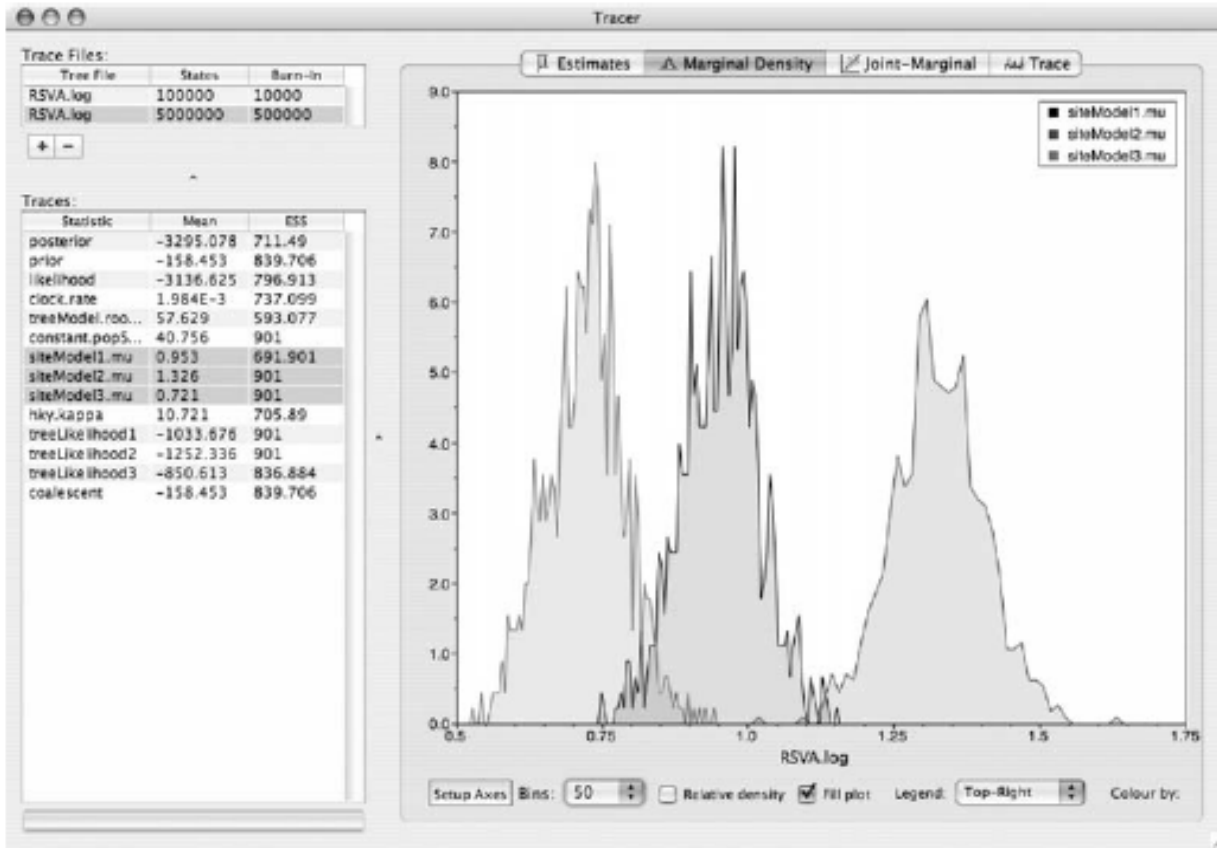
...in which case add:

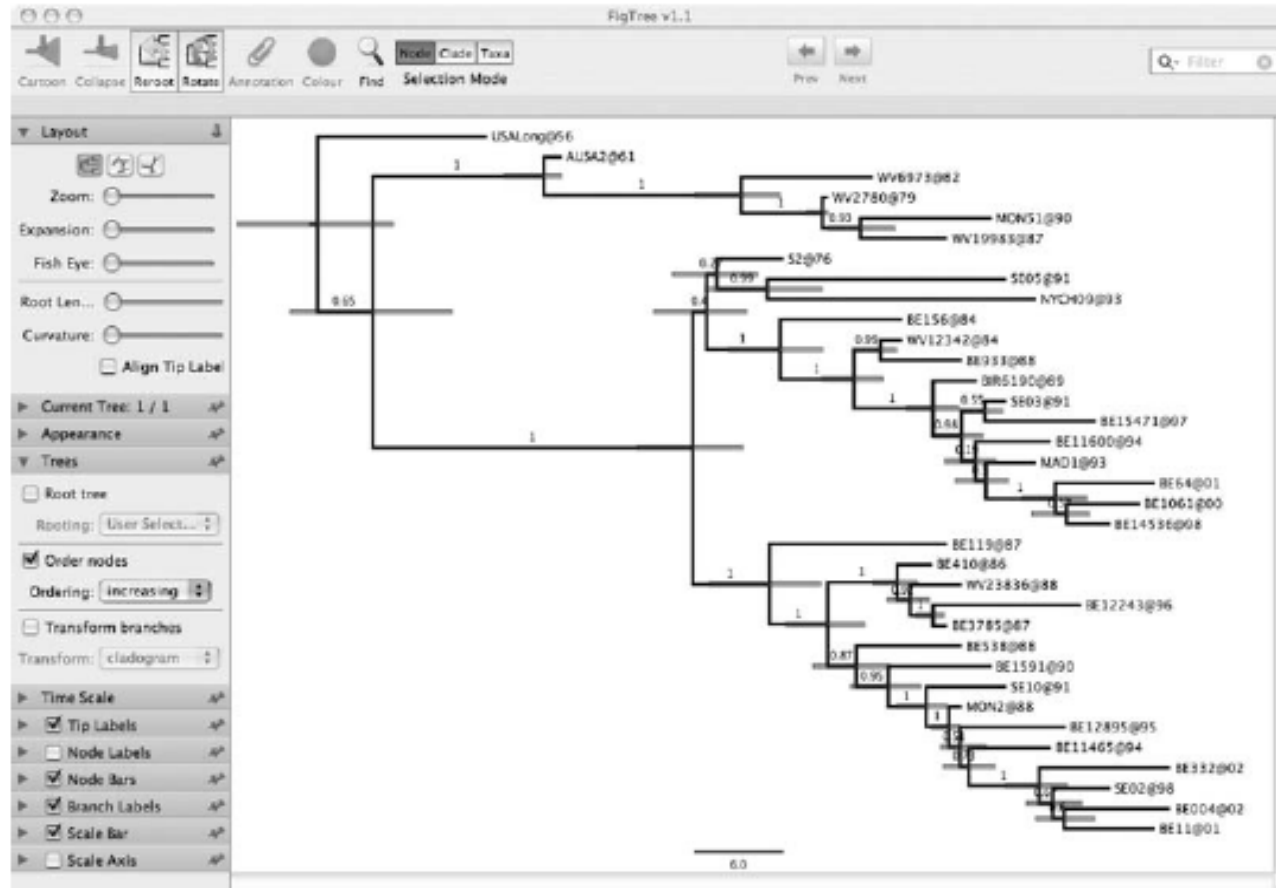
Cancel OK





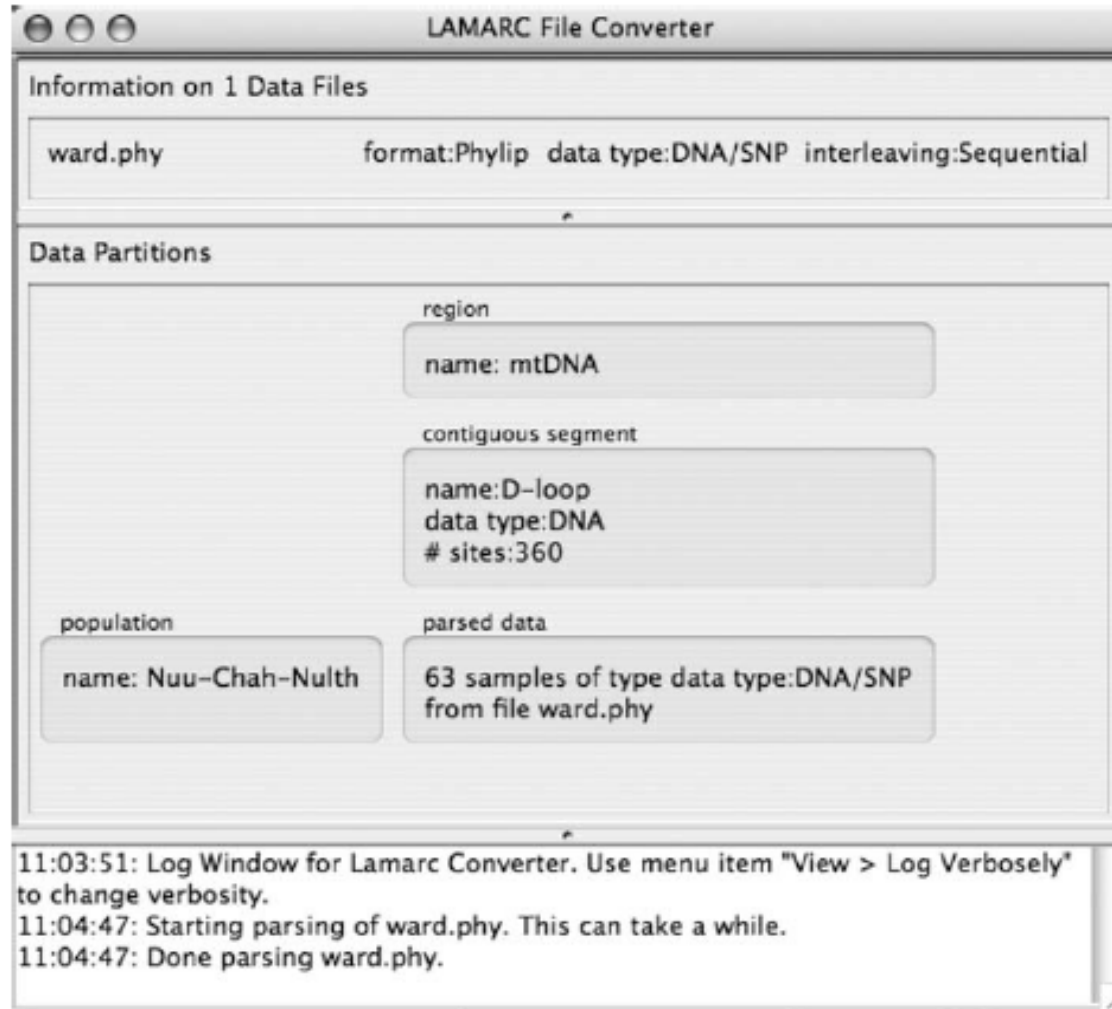






# 19. Populasyon genetiği parametrelerinin tahmini





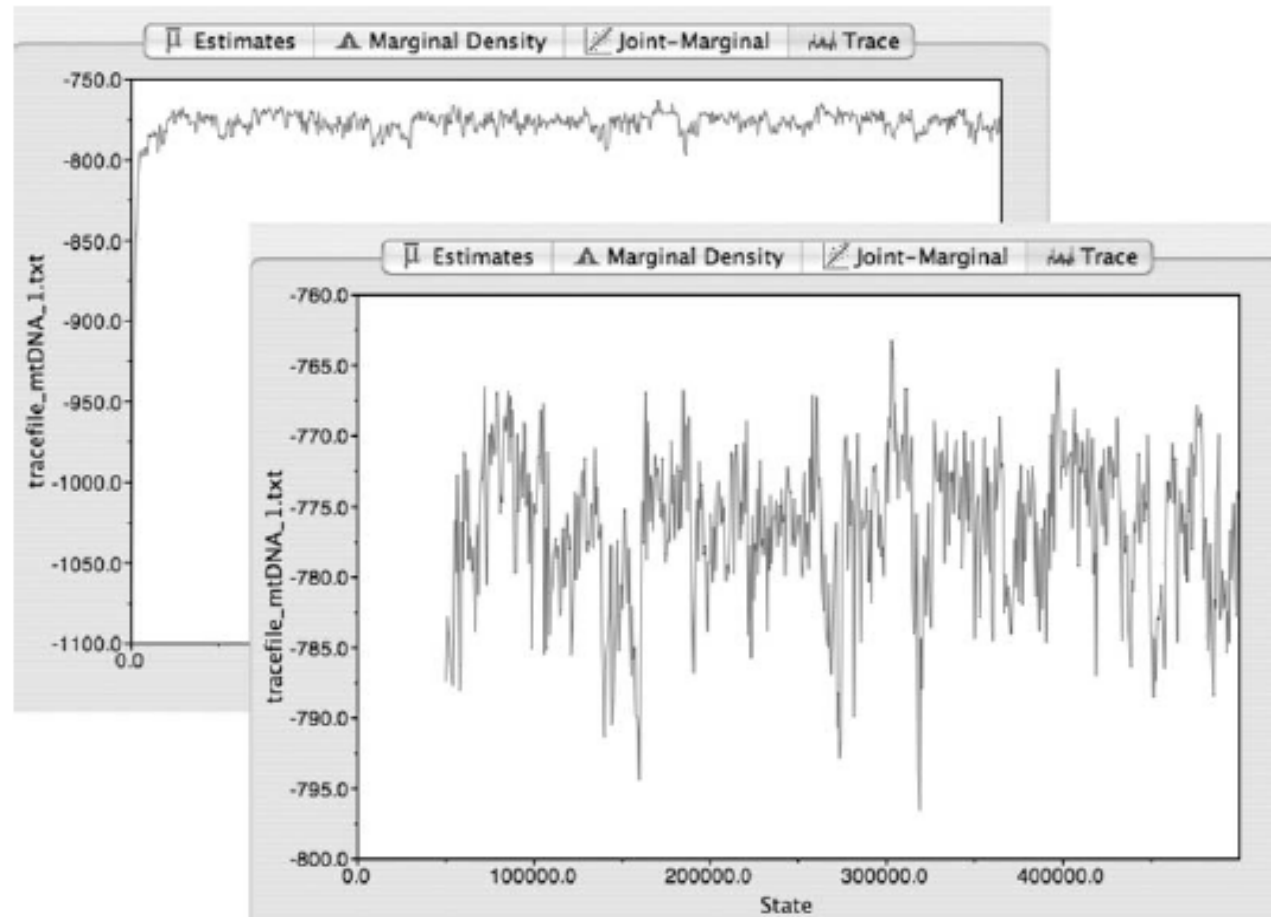
Edit data model for Region 1: mtDNA

	Datatype for this region	DNA
M	Data Model	F84
D	Use default data model for this region/segment	Yes
C	Number of Categories	1
A	Auto-Correlation	1
T	TT Ratio	2
B	Base Frequencies (A C G T)	0.3297 0.3371 0.1120 0.2213 <calc>
R	Relative mutation rate	1

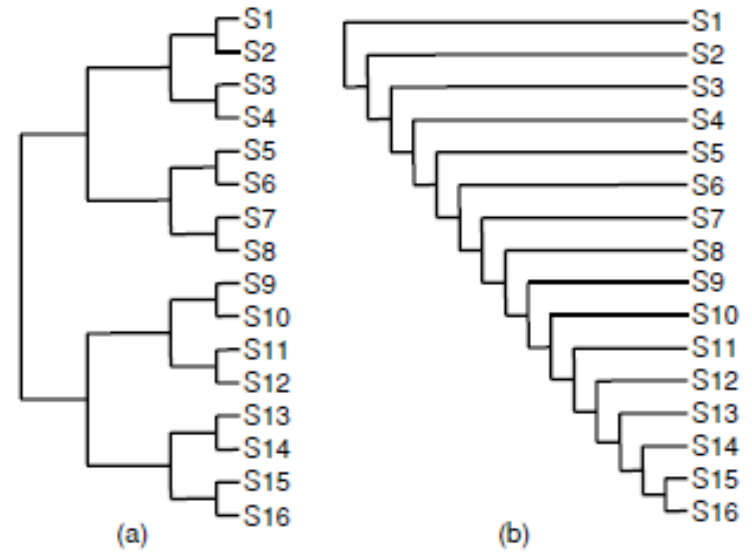
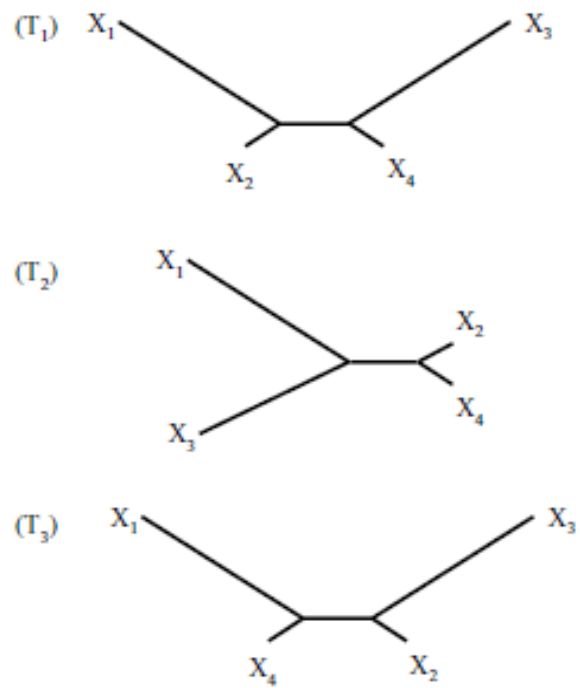
Sampling strategy (chains and replicates)

R	Number of replicates	1
	Initial Chains	
1	Number of chains (initial)	10
2	Number of recorded genealogies (initial)	500
3	Interval between recorded items (initial)	20
4	Number of samples to discard (initial burn-in)	1000
	-----	
	Final Chains	
5	Number of chains (final)	2
6	Number of recorded genealogies (final)	10000
7	Interval between recorded items (final)	20
8	Number of samples to discard (final burn-in)	1000

	Population Best Val (MLE) Percentile	Theta Theta1 0.060816	GrowthRate Growth1 246.0408
99%	0.005	0.033104	21.63394
95%	0.025	0.037098	71.87632
90%	0.050	0.039484	97.41261
75%	0.125	0.043920	137.8771
50%	0.250	0.049423	178.5456
	MLE	0.060816	246.0408
50%	0.750	0.075975	334.9648
75%	0.875	0.088914	454.1918
90%	0.950	0.105897	591.3140
95%	0.975	0.117563	640.8869
99%	0.995	0.140588	720.0954
Theta1: Theta for Nuu-Chah-Nulth			
Growth1: Growth for Nuu-Chah-Nulth			



# 19. Substitüsyon ilişkilendirme



Part II. For an extreme asymmetrical (and generally very unlikely) tree.

```
=====
Iss.c                0.6817
T                   11.7056
DF                  261
Prob (Two-tailed)   0.0000

95% Lower Limit     0.2749
95% Upper Limit     0.3920
```

Sequences ranked from the best to the worst.

```
=====
Seq_Name            Mean_Phi  Num_Insignif
-----
PanTroglydytesCOX1  0,1584      10
HomoSapiensCOX1    0,1495      12
PongoPygmaeusCOX1  0,1262      12
GallusGallusCOX1   0,1131      20
AlligatorMississippiensis  0,1124      20
BosTaurusCOX1      0,1096      20
BalaenopteraMusculusCOX1  0,1085      20
MasturusLanceolatusCOX1  0,0897      22
=====
```

Num\_Insignif conditional on  $c > 15$ .

