



```

speciation_sd ~ dnExponential(1.0)
extinction_sd ~ dnExponential(1.0)

log_speciation[1] ~ dnUniform(-10.0,10.0)
log_extinction[1] ~ dnUniform(-10.0,10.0)

speciation[1] := exp( log_speciation[1] )
extinction[1] := exp( log_extinction[1] )

for (i in 1:NUM_INTERVALS) {
  index = i+1

  log_speciation[index] ~ dnNormal( mean=log_speciation[i], sd=speciation_sd )
  log_extinction[index] ~ dnNormal( mean=log_extinction[i], sd=extinction_sd )

  speciation[index] := exp( log_speciation[index] )
  extinction[index] := exp( log_extinction[index] )
}

times_speciation <- T.rootAge() * (1:NUM_INTERVALS) / (NUM_INTERVALS) * 0.8
times_extinction <- T.rootAge() * (1:NUM_INTERVALS) / (NUM_INTERVALS) * 0.8

rho <- T.ntips()/377

timetree ~ dnEpisodicBirthDeath(rootAge=T.rootAge(),
                                lambdaRates=speciation, lambdaTimes=times_speciation,
                                muRates=extinction, muTimes=times_extinction,
                                rho=rho, samplingStrategy="uniform",
                                condition="time", taxa=taxa)

timetree.clamp(T)

```