

Priors_SC

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Générer des paramètres (Priors)

Ce script permet de générer des priors pour le modèle Démographique SC selon des distributions uniforme ou log-uniforme

```
library(stats)
library("KScorrect", lib.loc=~R/x86_64-pc-linux-gnu-library/3.3")
#####partie locus
#variables locus
#-L=taille du gene
#-t=theta
#-r=rho
#-delta=taille du track recombinant
#boucle de 1000000 iterations(1000000 tirage demographique)
demo<-NULL
locus<-NULL
tbs<-NULL
#####TIRER un prior locus dans une distribution uniforme de bornes
#L<-scan("/home/kadurand/partage_windows/Xylella/analyses_genomiques/ABC/1368oRTHOLOGUES_summarystats/L")
L<-scan("/home/kadurand/partage_windows/Xylella/analyses_genomiques/ABC/msms/lenght")#bound_taille du g
t<-runif(997,1E-11, 0.001 )#bound_theta=[0-0.0003]bornes vrai pour 13pauca_multiplex augmenter la borne
r<-runif(997,0,0.0001)#bound_theta=[0-0.0003]bornes vrai pour 13pauca_multiplex augmenter la borne sup
delta<-round(runif(997,10, 1000))#bound=[10-1000]
#print(L,t,r,delta)
m_locus=matrix(c(L,t,r,delta),ncol=4)
m_locus=as.data.frame(m_locus)

for (i in 1:10000){#tirage des priors demographiques
  #variables demographique modèle SC
  ##Param_demo (7) = Ts, N1, N2,M12, M21, Tsc, T1,
  Ts<-rlunif(1,100,1E+8)#bound=[1,100,1E+8]
  #N1<-rlunif(1,100,1E+6)#bound=[100,1E+6]
  N2<-rlunif(1,1E-3,1E+3)#bound=[100,1E+6]
  Na<-rlunif(1,100,1E+6)#Bound=[100,1E+6]
  M12<-runif(1,0.01,30)#bound=[0.01-30]
  M21<-runif(1,0.01,30)#bound=[0.01-30]
  Tsc<-rlunif(1,100,1E+5)#bound=[0-100]borne sup <Ts
  TS2=Ts+(Ts/1E+6)
  #print( Ts, N1, N2, M12, M21, Tsc)
  m_demo=matrix(c(Ts,N2,Na,M12,M21,Tsc),ncol=6)
  m_demo=as.data.frame(m_demo)
  locus<-cbind(m_locus,m_demo)
  path <- "/home/kadurand/partage_windows/Xylella/analyses_genomiques/ABC/msms/Priors_SC_msms/SC"
  write.table(locus,file= paste(path,i, sep="-"),col.names=FALSE,row.names =FALSE)
}
```

Distribution des Priors

```
##      V1      V2      V3 V4      V1      V2      V3      V4
## 1  258 0.0004760556 8.326071e-05 879 18291.48 15.52473 196448.4 19.44256
## 2 1275 0.0005266801 5.775155e-05 903 18291.48 15.52473 196448.4 19.44256
## 3 1074 0.0004399312 8.330831e-05 576 18291.48 15.52473 196448.4 19.44256
## 4 1197 0.0009617846 3.967644e-05 520 18291.48 15.52473 196448.4 19.44256
## 5  645 0.0006762178 1.541051e-05 634 18291.48 15.52473 196448.4 19.44256
## 6 1584 0.0007422637 3.914636e-05 958 18291.48 15.52473 196448.4 19.44256
##      V5      V6
## 1 20.43025 2217.469
## 2 20.43025 2217.469
## 3 20.43025 2217.469
## 4 20.43025 2217.469
## 5 20.43025 2217.469
## 6 20.43025 2217.469
```