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/le
t<--runif(1368,0, 0.001)#bound_theta=[0-0.0003]bornes vrai pour 13pauca_multiplex augmenter la borne su
r<-runif(1368,0,0.001)#bound_theta=[0-0.0003]bornes vrai pour 13pauca_multiplex augmenter la borne sup
delta<-round(runif(1368,10, 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 modéle 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(1,100,1E+6)#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(1,10,Ts)#bound=[0-100]borne sup <Ts
  TS2=Ts+(Ts/1E+6)
  #print( Ts,  N1, N2,  M12, M21, Tsc)
  m_demo=matrix(c(Ts,N1,N2,Na,M12,M21,Tsc,TS2),ncol=8)
  m_demo=as.data.frame(m_demo)
  locus<-cbind(m_locus,m_demo)
    path <- "/home/kadurand/partage_windows/Xylella/analyses_genomiques/ABC/fastSimBac_linux/Priors_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  321 -9.356687e-04 2.285566e-05  45 185.5134 18476.81 15199.64 34587.24
## 2 1974 -7.131180e-04 4.650015e-04  18 185.5134 18476.81 15199.64 34587.24
## 3  513 -2.505259e-05 4.180538e-04 470 185.5134 18476.81 15199.64 34587.24
## 4  809 -1.476475e-04 3.181927e-04 952 185.5134 18476.81 15199.64 34587.24
## 5  819 -5.913831e-04 1.502206e-04 835 185.5134 18476.81 15199.64 34587.24
## 6  876 -6.233156e-04 7.197810e-04 373 185.5134 18476.81 15199.64 34587.24
##         V5       V6       V7       V8
## 1 5.404524 20.42216 108.5414 185.5136
## 2 5.404524 20.42216 108.5414 185.5136
## 3 5.404524 20.42216 108.5414 185.5136
## 4 5.404524 20.42216 108.5414 185.5136
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