Priors_SC

karine Durand

24 octobre 2018

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(1,100,10000000)#bound=[100-10000000]
  N1<-rlunif(1,100,100000)#bound=[100-100000]
  N2<-rlunif(1,100,100000)#bound=[100-100000]
  Na<-rlunif(1,100,1000000)#bound=[100-1000000]
  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
  #print( Ts,  N1, N2,  M12, M21, Tsc)
  m_demo=matrix(c(Ts,N1,N2,Na,M12,M21,Tsc),ncol=7)
  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 -9.840673e-04 0.0008049623 742 6477.641 223.8351 19521.21 101228.4
## 2 1974 -9.394989e-04 0.0001248652 421 6477.641 223.8351 19521.21 101228.4
## 3  513 -5.952835e-04 0.0005188846 606 6477.641 223.8351 19521.21 101228.4
## 4  809 -9.610177e-04 0.0006955380 178 6477.641 223.8351 19521.21 101228.4
## 5  819 -5.132519e-09 0.0004055976 542 6477.641 223.8351 19521.21 101228.4
## 6  876 -3.988817e-05 0.0001793416 212 6477.641 223.8351 19521.21 101228.4
##         V5       V6       V7
## 1 26.59587 8.841225 3603.636
## 2 26.59587 8.841225 3603.636
## 3 26.59587 8.841225 3603.636
## 4 26.59587 8.841225 3603.636
## 5 26.59587 8.841225 3603.636
## 6 26.59587 8.841225 3603.636
```