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/l
L<-scan("/home/kadurand/partage_windows/Xylella/analyses_genomiques/ABC/msms/lenght")#bound_taille du g
t<-runif(997,1E-6, 0.01 )#bound_theta=[0-0.0003]bornes vrai pour 13pauca_multiplex augmenter la borne s
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 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(1,1E-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_mod/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 0.0042696258 4.594269e-05 184 2188.92 669.4336 775.7653 6.51644
## 2 1275 0.0057250374 8.995371e-05 752 2188.92 669.4336 775.7653 6.51644
## 3 1074 0.0056724302 9.938288e-06 880 2188.92 669.4336 775.7653 6.51644
## 4 1197 0.0069482829 3.555278e-05 257 2188.92 669.4336 775.7653 6.51644
## 5  645 0.0048188813 1.549386e-05 247 2188.92 669.4336 775.7653 6.51644
## 6 1584 0.0006552328 5.682169e-05 965 2188.92 669.4336 775.7653 6.51644
##        V5       V6
## 1 25.4206 2818.655
## 2 25.4206 2818.655
## 3 25.4206 2818.655
## 4 25.4206 2818.655
## 5 25.4206 2818.655
## 6 25.4206 2818.655
```