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### DATA

nt<-c(16, 37, 4, 2, 33, 0, 2, 0, 4, 0)
##nt is the mosquito time

mt<-nt+1

mt1<-mt[2:9]
mt<-mt[1:8]

##mt is the normalised data nt + one

RR<- c(1.8647197, 1.2197917, 0.6070103, 2.1224952, 0.8369324, 1.0796486,
0.7046447, 0.6938271)

RR<-RR-mean(RR)

## RR is the standardised standard deviation of the temperature.

envF <- function (lambda0, b, kappa,g){
  mt1<-mt1
  mt<-mt
  RR<-RR
  -sum(dpois(mt1, lambda=exp(log(lambda0)+log(mt)+(-1*b*mt+g*RR) ),log=T) )
}

### env F is a maximum likelihood function to fit a Poisson Ricker model with a
covariate

library(bbmle)
### bbmle is a library with useful functions to fit maximum likelihood models

envfor=mle2(envF,start=list(lambda0=3.7, b=0.09,g=3.53))

### mle2 is the R command to fit the function envF, envfor the object were
parameters are stored

summary(envfor)

### summary is the R command to see the fitted parameters

```