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Accessory publication

Declining fires in *Larix*-dominated forests in northern Irkutsk district

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R-code for statistical analyses

```
# Number of fires
nfires=data.frame(
  ls=rep(0:3,4),
  cent=rep(16:19, each=4),
  n=c(1,4,6,6,7,8,9,10,3,4,4,4,1,1,1,2))
nfires$cent=ordered(nfires$cent)
cm=contrasts(nfires$cent)
nfires$cm1=cm[nfires$cent,1]
anova(glm(n~cm1,data=nfires,family='quasipoisson'),test='F')


#Fire cycle
nplots=data.frame(
  ls=rep(0:3,4),
  cent=rep(16:19, each=4),
  total=c(142,33,503,417,588,449,709,626,1173,983,925,889,1279,1100,1100,1098),
  burnt=c(1,0,9,6,8,8,16,14,12,15,7,2,12,1,3,13))
nplots$cent=ordered(nplots$cent)
```

```
cm=contrasts(nplots$cent)
nplots$cm1=cm[nplots$cent,1]
anova(glm(burnt~cm1,family='quasipoisson',offset=log(total),data=nplots,subset=total>0),
test='F')
#Confidence intervals
glm.fit=glm(burnt~cent-1,family='quasipoisson',offset=log(total),data=nplots,subset=total>0)
pred=coef(glm.fit)
stderr=sqrt(diag(summary(glm.fit)$cov.scaled))
round(1/exp(cbind(pred+2*stderr,pred-2*stderr)))
#C.i. for average fire cycle
glm.fit=glm(burnt~1,family='quasipoisson',offset=log(total),data=nplots,subset=total>0)
pred=coef(glm.fit)
stderr=sqrt(diag(summary(glm.fit)$cov.scaled))
round(1/exp(cbind(pred+2*stderr,pred-2*stderr)))

#Subjectively selected plots
nplots=data.frame(
  ls=rep(0:3,4),
  cent=rep(16:19, each=4),
total=c(91,300,176,100,299,266,101,100,386,300,200,100,400,300,200,100),
  burnt=c(1,5,1,2,6,7,2,2,5,4,1,1,4,0,0,1))
glm.fit=glm(burnt~1,family='quasipoisson',offset=log(total),data=nplots,subset=total>0)
pred=coef(glm.fit)
stderr=sqrt(diag(summary(glm.fit)$cov.scaled))
round(1/exp(cbind(pred+2*stderr,pred-2*stderr)))
```