**glm1 <- glm(damage~age,data=df,family="binomial")**

**fitPlot(glm1,xlab="Stand Age (yrs)",ylab="Damaged")**



**summary(glm1)**

Coefficients:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -9.20190 0.71143 -12.93 <2e-16 \*\*\*

age 0.16403 0.01358 12.07 <2e-16 \*\*\*

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 1233.4 on 999 degrees of freedom

Residual deviance: 1037.8 on 998 degrees of freedom

AIC: 1041.8

Number of Fisher Scoring iterations: 4

1. Interpret slope (on the fitted and a back-transformed scale).
2. Predict the log odds of damage for a stand age of 50 years.
3. Predict the odds of damage for a stand age of 50 years.
4. Predict the probability of damage for a stand age of 50 years.
5. Predict the stand age where 20% of the stand will be damaged.
6. How will the log odds differ if the stand age is 10 years older?
7. How will the probability differ if the stand age is 10 years older?