> #fit model between vairables

> fit1 <- lm(biomass ~ BOTTEMP+ DEPTH+

+ biomass\_herring,data =data\_clean)

> summary(fit1)

Call:

lm(formula = biomass ~ BOTTEMP + DEPTH + biomass\_herring, data = data\_clean)

Residuals:

Min 1Q Median 3Q Max

-229.17 -1.75 -1.27 -0.59 677.43

Coefficients:

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

(Intercept) 6.99017 2.73763 2.553 0.0107 \*

BOTTEMP -0.29461 0.17440 -1.689 0.0913

DEPTH -0.02529 0.01035 -2.443 0.0147 \*

biomass\_herring 0.75152 0.02168 34.667 <2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 18.81 on 1988 degrees of freedom

Multiple R-squared: 0.3832, Adjusted R-squared: 0.3823

F-statistic: 411.7 on 3 and 1988 DF, p-value: < 2.2e-16

> anova(fit1)

Analysis of Variance Table

Response: biomass

Df Sum Sq Mean Sq F value Pr(>F)

BOTTEMP 1 6291 6291 17.771 2.603e-05 \*\*\*

DEPTH 1 5516 5516 15.582 8.177e-05 \*\*\*

biomass\_herring 1 425451 425451 1201.834 < 2.2e-16 \*\*\*

Residuals 1988 703754 354

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

