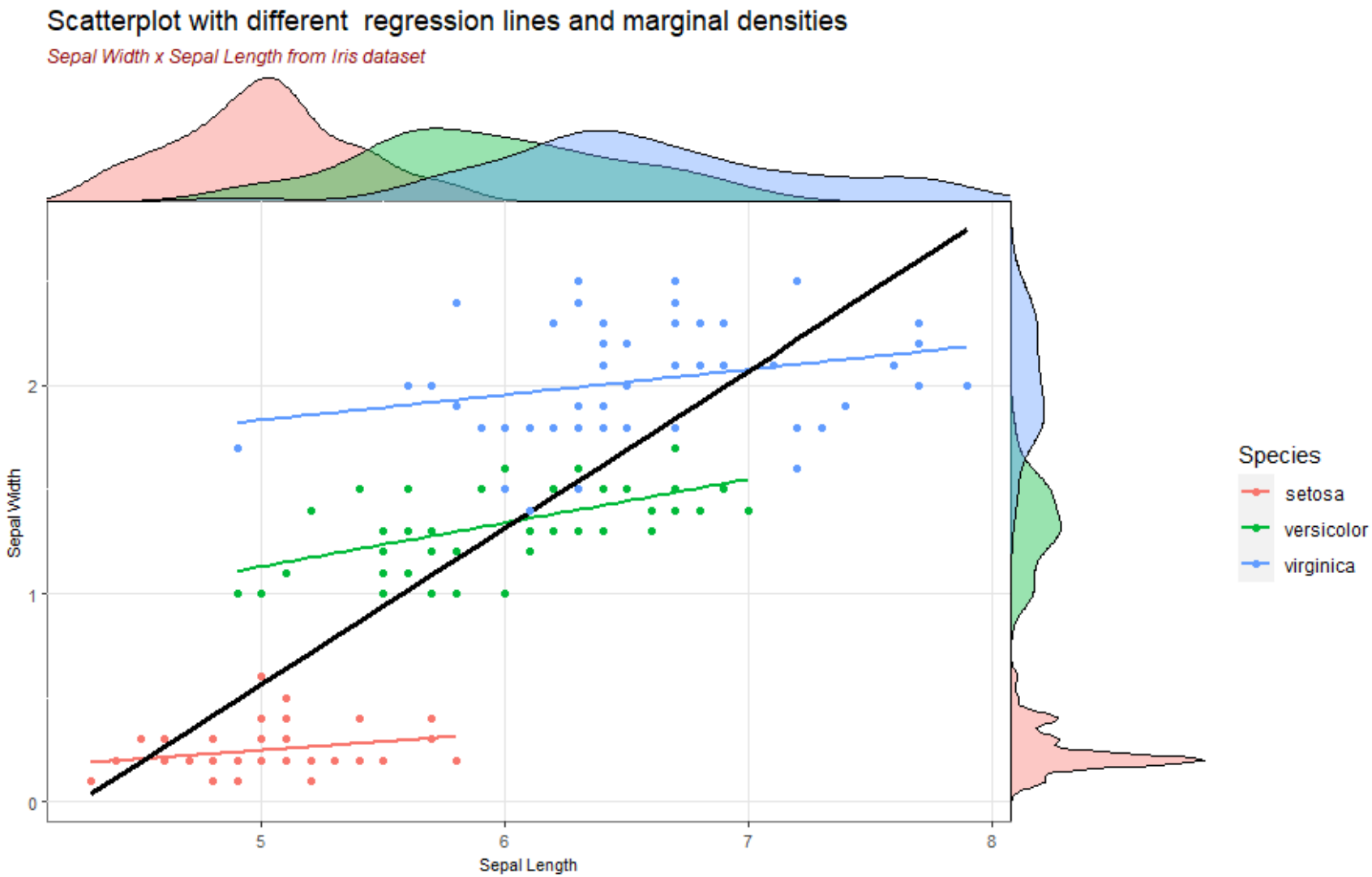
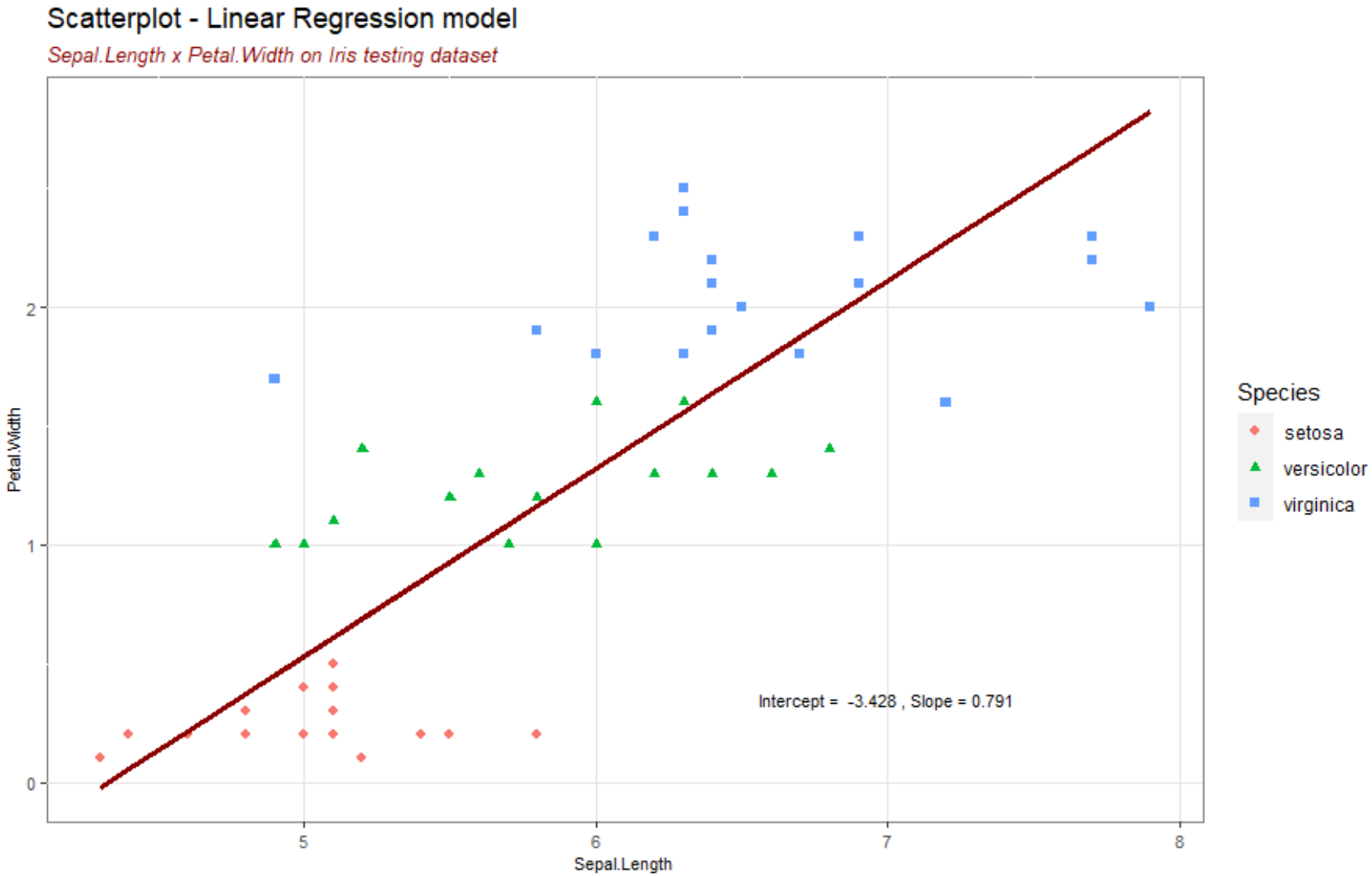
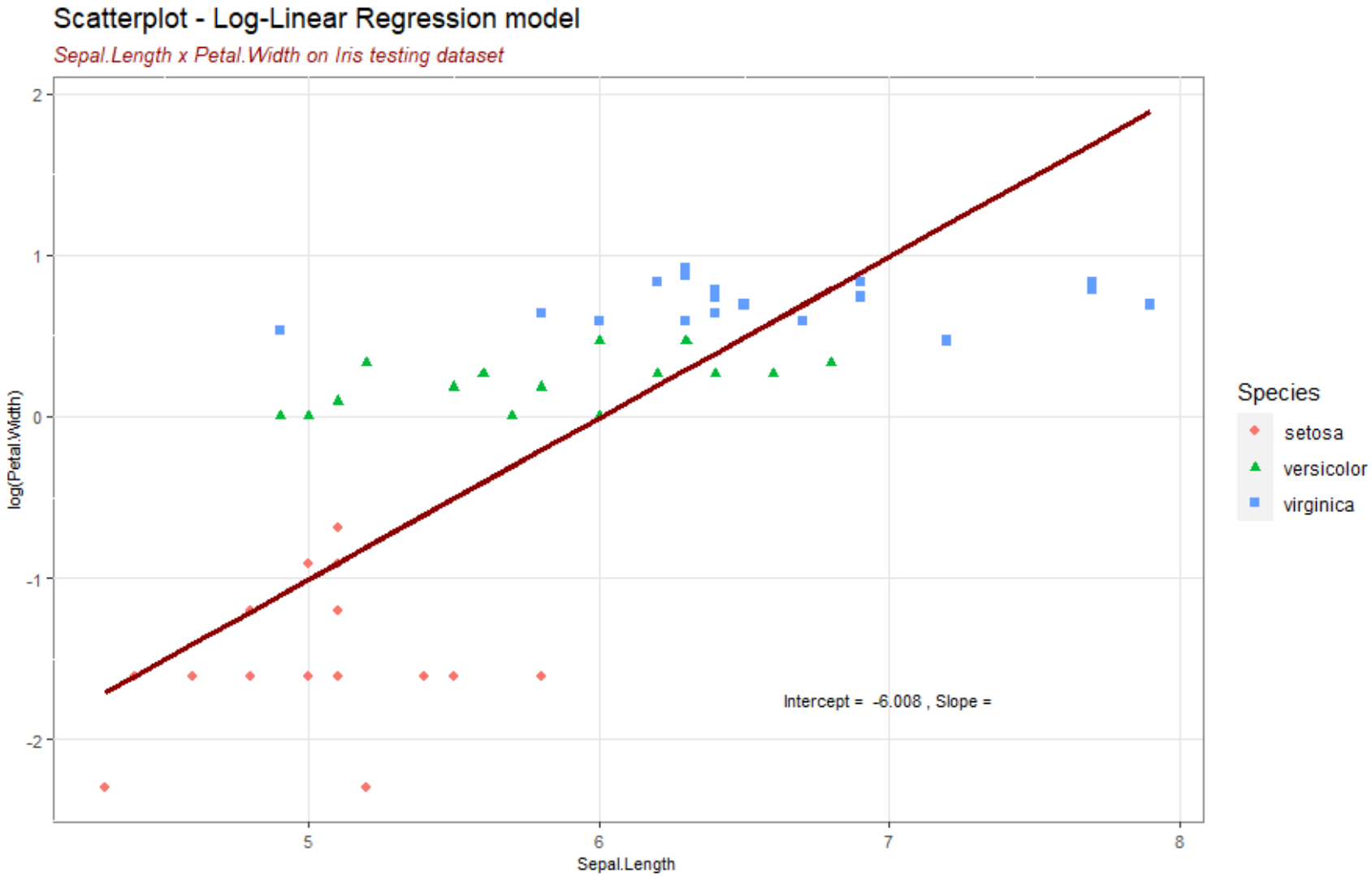
Visualization of Iris dataset



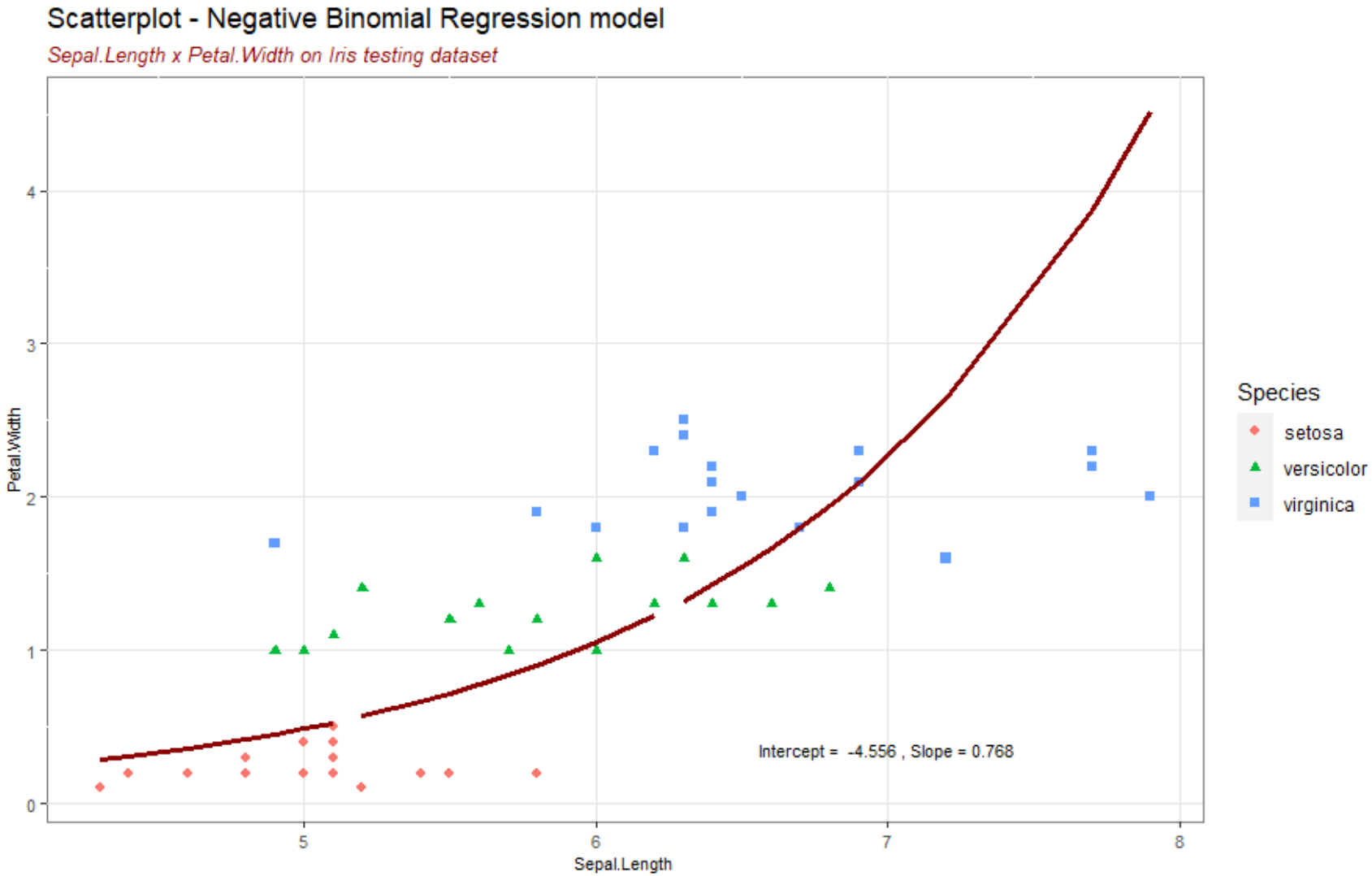
Simple Linear Regression



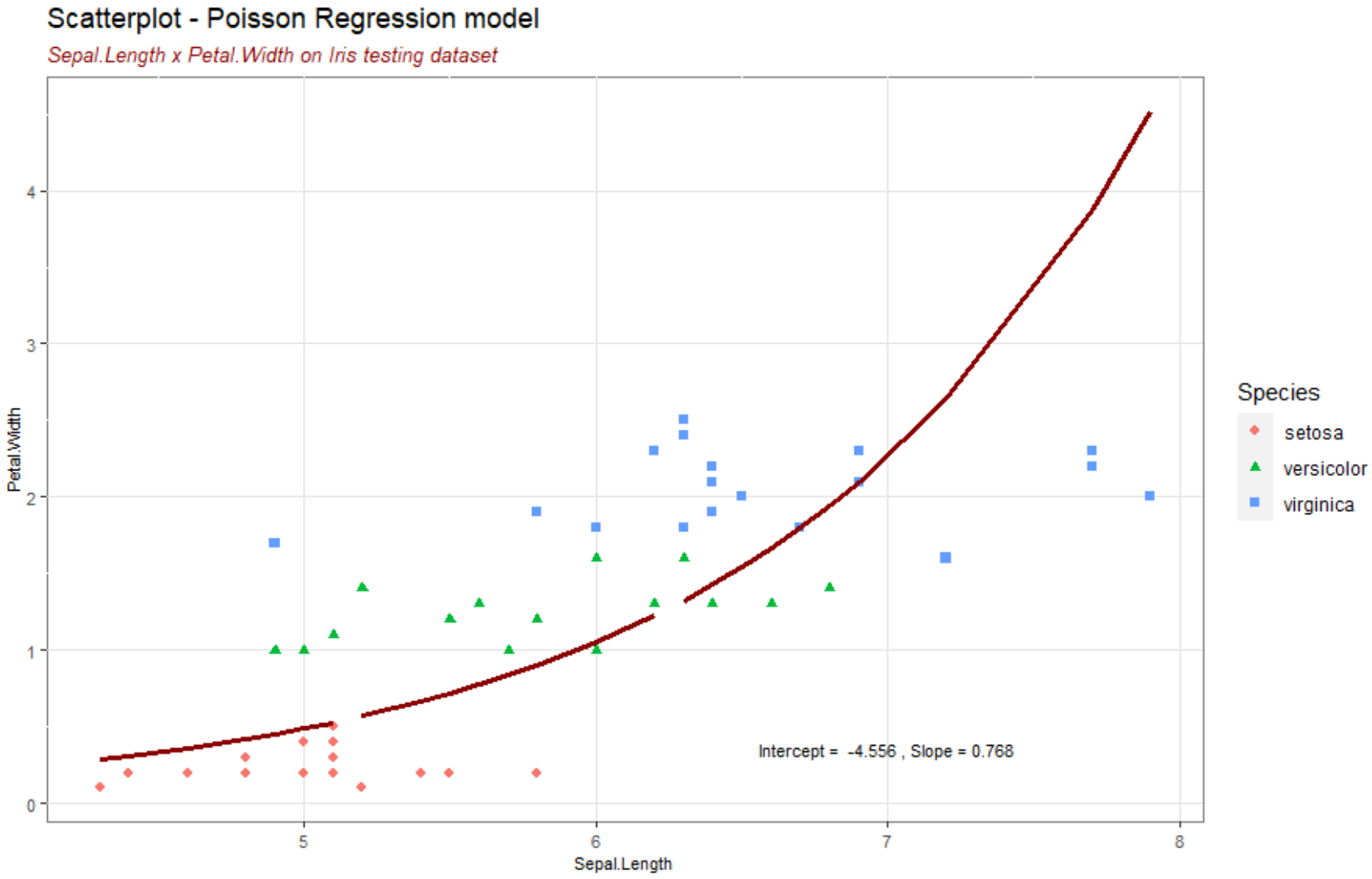
Simple Log-Linear Regression



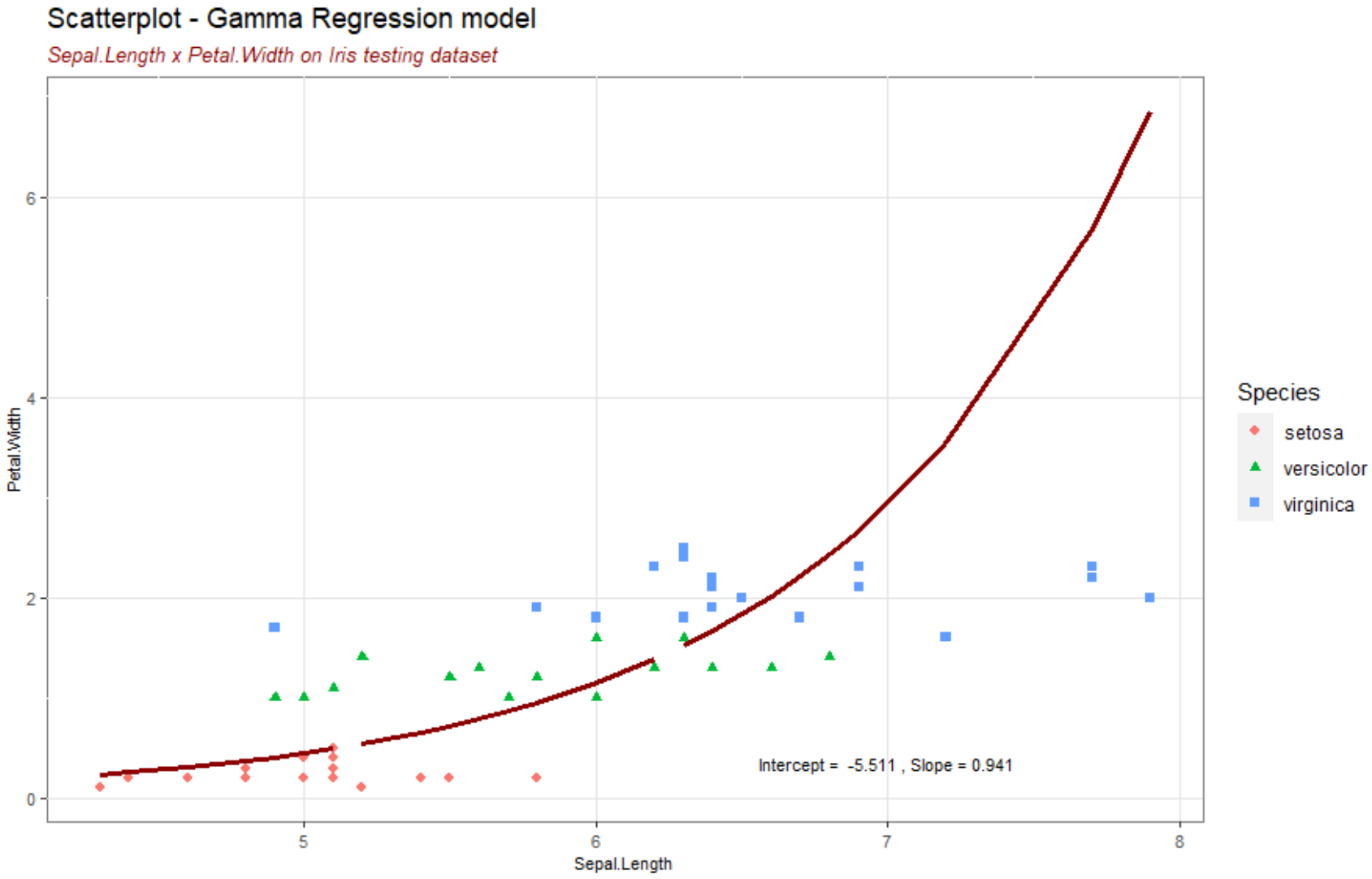
Negative Binomial Regression



Poisson Regression



Gamma Regression

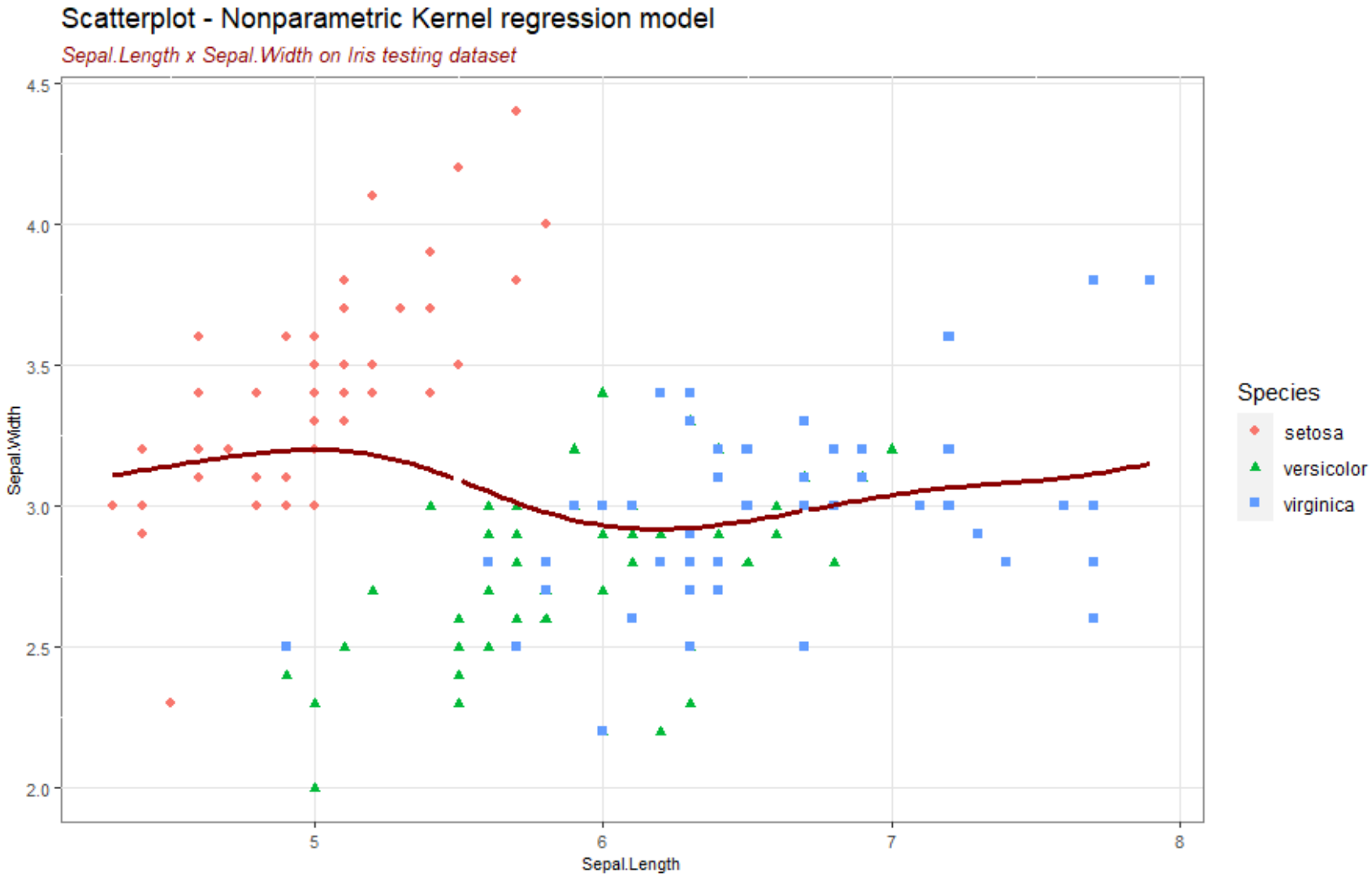


RMSE among models

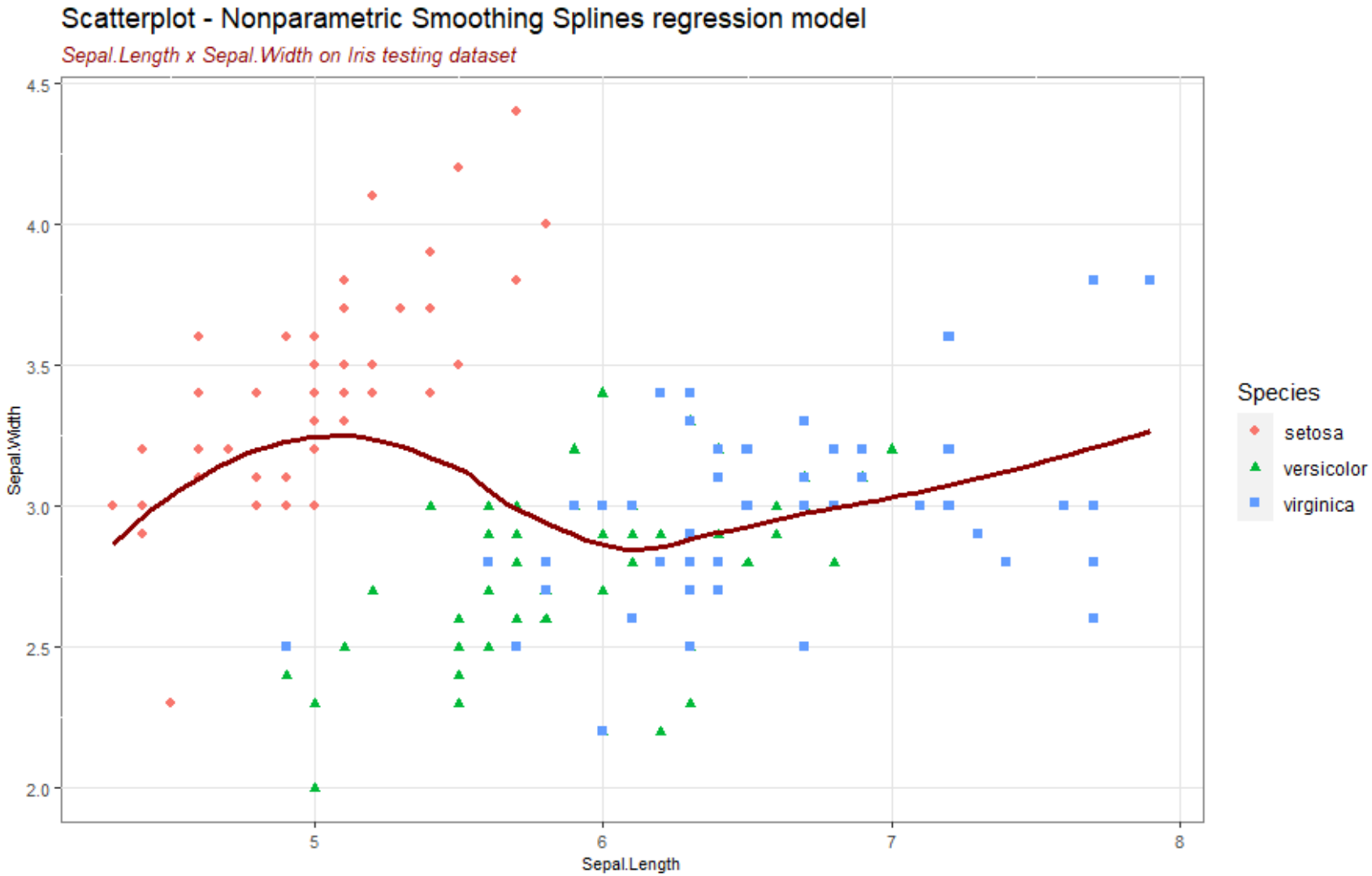
```
RMSE_lin <- sqrt(mean((testing$Petal.Width - testing$lr.model)^2))
RMSE_lol <- sqrt(mean((testing$Petal.Width - testing$log.lin.model)^2))
RMSE_poi <- sqrt(mean((testing$Petal.Width - testing$pois.model)^2))
RMSE_nbi <- sqrt(mean((testing$Petal.Width - testing$nb.model)^2))
RMSE_gam <- sqrt(mean((testing$Petal.Width - testing$gam.model)^2))

RMSE <- matrix(c(RMSE_lin, RMSE_lol, RMSE_poi, RMSE_nbi, RMSE_gam ), ncol = 5)
colnames(RMSE) <- c("Linear", "Log-Linear",  "Poisson", "Negative Binomial", "
      Gamma")
rownames(RMSE) <- 'RMSE'
RMSE
```

	Linear	Log-Linear	Poisson	Negative Binomial	Gamma
RMSE	0.49	1.48	0.74	0.74	1.20

Nonparametric Kernel Regression



Nonparametric Smoothing Splines Regression



References

The R Project for Statistical Computing:

https://www.r-project.org/