We are testing the effects of previous year predation rate and previous year population density on current year population density in a long-term data set of a collared flycatcher population. The tricky point is that previous year density and previous year predation are correlated.

Please proceed as follows.
1) Rename the data file to a more tractable name, e.g. biomdata.csv.
2) Import the data to R and open the car procedure.
3) Test the effects of previous predation and previous density in the same model. This will be a collinear model that gives you net estimates for both variables. Calculate the Type III statistical results and the parameter estimates for both terms.
4) Test the effects of the two variables in two separate models (one variable per model). This will give you gross parameter estimates for both variables. Calculate the Type III statistical results and the parameter estimates for both terms.
5) Test the effect of previous predation on previous density. Add the residuals of this model as a new variable to the end of the data set.
6) Test the effects of previous predation and previous residual density in the same model. This will attribute the correlated effects of the two variables to predation. It will therefore give you a gross parameter estimate for previous predation and a net parameter estimate for previous density. Calculate the Type III statistical results and the parameter estimates for both terms.
7) The report should contain the Type III results and the parameter estimates for both terms from the three different scenarios (collinear, separate, residual).