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**O2 Availability Intro Silver Lab Project**

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Questions about your dataset and model

*Questions are in italic. We have provided an example answer to each question based on the Bayesian model Eric Lind implemented in* [*a recent NutNet paper*](http://www.esajournals.org/doi/abs/10.1890/14-1902.1)*)*

*1. Specify your process model (i.e., this is the regression you would write out)*

For example….

Plant aboveground productivity ~ Soil nitrogen + Soil phosphorus + Soil potassium + Soil carbon + Soil pH + Elevation + Precipitation + Potential evapotranspiration + Nitrogen deposition

Soil O2 ~ soil Moisture + soil pH + soil Fe + soil % clay (+ drought categorical?)

*2. Identify hierarchical levels (both spatial and temporal)*

For example….

Plot level variables are nested within site–level variables

- Plots are within topographic transects

- Site is made up of 5 topographic levels

- Some variables are not measured at all topographic levels, so those are site-level variables

*3. Identify which predictors are operating at each level identified in Question 2*

For example….

Plot level variables: Soil nitrogen, Soil phosphorus, Soil potassium, Soil micronutrients, Soil pH

Site-level variables: Elevation, Precipitation, Potential evapotranspiration, Nitrogen deposition

Plot level: soil O2, soil moisture, drought categorical

Topographic level: soil pH + soil Fe only after drought

Site level: soil pH + soil Fe (before drought), soil % clay

*4. Identify the distributions of the predictors*

For example….

Normal (after each of the predictors are log transformed and standardized)

Normal???