**Read Me**

There are five files in this folder: two matlab programs and three data files. Their descriptions will be listed below.

**Data Files**

1. Growth\_Data\_SC\_clean.csv

This is data pulled form the FIA database for the state of Louisiana. It includes measurements made after 1998 at every site class. The columns are organized in the following way. Column one reports the stand age. Column two reports the biomass in cubic feet of growing stock. Column three reports the site class.

1. Growth\_LowInt.csv

This is data pulled from the loblolly pine growth table reported in Smith et al. 2006 for “normally” managed loblolly pine. It is organized into two columns. Column one is stand age, column two is biomass in cubic feet of growing stock. There is not site class.

1. Growth\_HighInt.csv

This is data pulled from the loblolly pine growth table reported in Smith et al. 2006 for intensively managed loblolly pine. It is organized into two columns. Column one is stand age, column two is biomass in cubic feet of growing stock. There is not site class.

**Matlab Files**

1. Formon\_growthls\_FIA\_SC.m

This is a function which, when called, calculates the error term between a set of data points either in the FIA dataset or from a growth table. It is handed a set of parameters, and using those parameters simulates multiple realizations of a growth function with stochastic shocks. It then averages those simulations to generate an averaged simulated growth function. Using the averaged simulated growth function, it generates fitted values at each stand age. The difference between the fitted values and observed values produce an error term which is then fed to the non-linear fit routine.

1. GrowthFitSC.m

This program reads in the biomass observations, initializes parameters, generates the halton draws (by calling another function), and sets up and runs the non-linear fit algorithm. It then re-generates a growth function using the parameters calculated in the fit routine and the halton draws and generates a figure from the fitted growth function and observations.