Ebfm\_modeltesting Notes

1/4/17-1/11/17

* I added notes to explain what each piece of code does.
* I added questions to be answered (mostly what does each function do and why are things formatted a certain way).
* At the start of the script I listed both what the script’s purpose is and what data may need to be changed when running on new data/on a new machine.
* I also listed csv files called by functions saved as individual files in the R folder that I do not have access to, and therefore the code does not work.
* I reformatted the data file “Georges.dat” so that it is a JSON file that is less error prone when referencing
  + This reformatting was saved as a function in ProcessRawDataFile.R script
  + This required that I change the way in which variables are defined at the start of the msprod\_mse.R script (must reference JSON file now, not original Georges.dat file.
* I wrote script: eco.indicators
  + This function processes data based on indicators randomly chosen for the model run and returns a data frame containing values for the chosen indicators
  + The get.Indicators function is utilized within the eco.indicators function below, as get.Indicators is responsible for calculating values for indicators
  + As a result, the main reason for having eco.indicators function is to format the output of get.Indicators to be used more easily in other calculations
    - The resulting ecological indicators are organized as a data frame which is stored as "indicators"
    - The return is a data frame containing the indicators and named "indicators"
* I wrote script: SShrate.calc
  + This script processes the outputs of scripts that format and run the Single Species assessment in order to calculate the harvest rate (hrate) to be used when updating the operating model
    - Data for the SS assessment is formatted/compiled by writeSSdatfiles function
    - SS assessment is run by doSSassess function
      * The resulting output from doSSassess include values for: growth rate(r), carrying capacity(k), z, theta, sigma?????????????????????????fill this in based on SSresults??????????????????
  + Remaining lines of code included in SShrate.calc take the returned information from doSSassess to calculate estimated catch(estCat), estimated exploitation rate (estu)
  + The harvest rate to be used in other calculations (the returned value of this scripts is hrate) is calculated by dividing estimated catch by abundance and constraining this fraction to be less than or equal to 0.99

Code Notes:

To read data from JSON file:

Datfilename <- “location of file”

Datavariable <- fromJSON(Datfilename)

To then define variables referring to data in this loaded JSON file:

Variable <- Datavariable$InfoIWant

Or

Datavariable[[“InfoIWant”]]