**Background information on the PREDATOR Models**

[STRESSOR ID documentation](file:///Q:/Reports/Final/Stressor%20ID_ODEQ%20report_Dec08_FINAL.pdf)

1. Query out from Access database ([Q:\Bugs\Bug models.mdb](file:///Q:/Bugs/Bug%20models.mdb)).
   1. Run the “Missing Stressor\_bugs\_Crosstab” query to get the bug data in a Site x Species format.
   2. Copy the data from the query and manually import into Excel. (I haven’t figured out a way to export from Access 2007 that doesn’t involve a glitch somewhere. Thanks for the switch I.T.!)
2. Create a tab delimited file.
   1. The C2 program used to score the sites accepts Excel files, but not the new 2007 format. Again, thanks IT!
   2. Replace all blanks with 0’s
      1. Click on the select-all square
         1. Upper left
         2. Between column A and row 1
      2. Hit “Control-H” (Replace)
         1. Find what = press the tab key
         2. Replace with = “0” (zero)
         3. Select “Replace All”
   3. Save in Q:\Stressor\May 05\1\_Missing scores\
   4. Example file name: “Missing stressor\_31dec08.txt”
3. Installing the C2 program.
   1. If you don’t have a copy of the software, go to [Q:\software](../software) and run the .exe file
   2. After installation, copy the license file (“c2.lic”) to the C:\Program files\C2 directory
4. Open C2
   1. Fine Sediment model
      1. Open the C2 file used to build the model.
         1. Click File, then Open.
         2. Navigate to Q:\Stressor\May 05\Sediment\17May05\_calib
         3. Select and open “Sed\_17May05.c2”
      2. Bring in the new file for missing scores.
         1. Again, click File|Open
         2. Navigate to Q:\Stressor\May 05\1\_Missing scores
         3. Change the “Files of type” drop-down to “Tab-delimited”
         4. Select and open the text file you created above
         5. This will add the new missing scores file to the “datasets” folder on the left side of C2
         6. Click on the file name, then click on “data” to check that the data was imported correctly
      3. Re-run the Fine Sediment Model
         1. Click on “Model 03\_use this one”
         2. At the top, select “Analyze|Re-run Model”
         3. In the pop-up window
            1. Change the model name to reflect the data file you are analyzing (add a description if you want)
            2. Change “supplementary data” to the new missing scores file
            3. Leave all other info the same
            4. Click Run
         4. A “Compare names” window will pop-up. Hit “OK”.
         5. A new model will appear in the list of models.
      4. Getting the scores
         1. Expand the new model you just created
         2. Select “Reconstructions”
         3. Select the “Code” and “WA\_Inv” columns
            1. Code is the SVN
            2. WA\_Inv is the transformed inferences of fine sediment values, based entirely on the bug assemblage
         4. Copy the columns
         5. Paste the columns into Excel
      5. Convert the modeled values to the Fine Sediment Score (FSS)
         1. Copy in the formula to untransform the data back into % Fines units
            1. =((SIN((3.14159265358979\*((10^A1)-1)/2)))^2)\*100
            2. Change A1 to whatever cell in Excel you are referring to
            3. Don’t ask why this is such a confusing transformation. Future versions of the models will avoid this.
         2. FSS is recorded in whole numbers only (no decimal places)
   2. Temperature model
      1. Open the C2 file used to build the model.
         1. Click File, then Open.
         2. Navigate to Q:\Stressor\May 05\Temperature\
         3. Select and open “18May05Temper.c2”
      2. Bring in the new file for missing scores.
         1. Again, click File|Open
         2. Navigate to Q:\Stressor\May 05\1\_Missing scores
         3. Change the “Files of type” drop-down to “Tab-delimited”
         4. Select and open the text file you created above
         5. This will add the new missing scores file to the “datasets” folder on the left side of C2
         6. Click on the file name, then click on “data” to check that the data was imported correctly
      3. Re-run the Temperature Model
         1. Click on “Model 01\_use this one”
         2. At the top, select “Analyze|Re-run Model”
         3. In the pop-up window
            1. Change the model name to reflect the data file you are analyzing (add a description if you want)
            2. Change “supplementary data” to the new missing scores file
            3. Leave all other info the same
            4. Click Run
         4. A new model will appear in the list of models.
      4. Getting the scores
         1. Expand the new model you just created
         2. Select “Reconstructions”
         3. Select the “Code” and “WA\_Inv” columns
            1. Code is the SVN
            2. WA\_Inv is the inferences of temperature values, based entirely on the bug assemblage (not back transformations are necessary)
         4. Copy the columns
         5. Paste the columns into Excel along with the FSS scores
         6. Temperature Scores (TS) are recorded to one decimal place (tenths of degrees, e.g. 17.5)
         7. Double-check that all SVNs are equivalent between FSS and TS
   3. Save the scores as an Excel spreadsheet in the Q:\Stressor\May 05\1\_Missing scores folder
   4. Let your friendly Bug Overlord know that these scores need to be updated into the BiomonXP\Summary Bugs table.