How to do a Mann Whitney test in SPSS v21.

1. Prepare data for import into SPSS as demonstrated in the example Excel file.
2. Import data into SPSS
   1. Close the excel file
   2. Open spss
   3. Choose the Open data option, then browse to where excel file is stored. Make sure that in the dialog box you have selected excel files to be visible.
   4. Click on excel file with your data
   5. If you have multiple worksheets, you will have to choose which one to open.
3. Review data by going to the Data Editor panel within SPSS
   1. Within this panel, switch to “variable view” using tab at bottom.
   2. Check that your treatment groups column is coded as “nominal” under the “measure” column; if it isn’t use dropdown in the cell to change.
   3. Check that your data to be compared between groups is coded as “scale” under the “measure” column; if it isn’t use dropdown in the cell to change.
   4. Under the “type” column, both should be coded as numeric. If not, change using dropdown in the cell.
4. Begin the analysis by clicking on the menu at top on the “Analyze” option.
   1. Choose “non parametric tests”, then “legacy dialogs”, then “2 independent samples”
   2. In the dialog box that pops up, drag your data column label into the “test variable list” box; and drag your treatment group column in to the “grouping variable” box. Specify the treatment group codes to analyze so SPSS knows which treatments to include in the comparison.
   3. Make sure the Mann-Whitney U box is checked at bottom of dialog box.
   4. Click on the options button, and choose “descriptives” to give you descriptive variables.
   5. Click OK and then the MWU test should be done. You will be automatically taken to the Output panel within SPSS.
5. Interpreting the results
   1. First make sure the program analyzed the data you wanted it to.
      1. In the “ranks” box, check that the treatments you wanted to analyze were included. Also check that the sample size (N) is correct.
   2. Your results are in the “test statistics” box.
      1. The only data you have to report for a MWU test is the p value. Your sample size is important too, but should be reported elsewhere in your results, not with the statistical results.
      2. Look at the “Asymp.Sig. (2-tailed)” line (Asymp.Sig is what SPSS calls a P value). The number with it is your P-value. Don’t confuse this variable with the “Exact Sig.” line which is the P value for if you are doing a 1-tailed test.
6. Record your results
   1. I recommend that you save your results by saving the output file.
   2. Save with a name that tells you what the analysis is about (e.g., “MWU.habitats.crayfishsize.24Jun2015”. Include a date in case you have multiple versions and need to identify the old vs new versions.