**Comparison of HLS processed with VIIRS and LaSRC 3.5.1 vs with MODIS and LaSRC 3.0.5**

1. **Comparison of layers derived from just the current granule plus the baseline**

For this comparison we ran the VEG-IND, VEG-ANOM, and GEN-ANOM layers for both sets of HLS data by changing the parameters.py to source the correct HLS (ln3) and define the output folder (ln 4) and then running anom\_manager.py (>python anom\_manager.py filelist.txt ALL) . We then ran getDiff.pl to generate the difference histograms for each of these layers and analyzed the results in the respective Excel workbooks.

1. **Comparison of time-series results**

For this comparison we first ran sameFiles.pl to generate a list of the comparable HLS data between the two sets (VIIRS-based and MODIS-based). We then applied DIST-ALERT to all the dates by running DIST\_ALL.py (>python DIST\_ALL.py samefiles.txt RESTART False) and changing the parameters.py file to source the correct HLS (ln3) and define the output folder (ln 4). We then generated difference matrices of VEG-DIST-STATUS of DIST-ALERT for the last date of each tile and copied the results into VIIRStimeSeriesCompareTables.xlsx. We also ran DIST-ANN (>perl annualManager.pl tiles.txt 2021274 2022273 2022h) to compare VEG-DIST-STATUS. Run “perl getDiff.pl VEG-DIST-STATUS” and “perl getDiffMat.pl VEG-DIST-STATUS” to get the agreement matrices.