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GEOG 375

Executive Summary for Mojave Desert Programming Project

In order to determine if there is more detectable vegetation in the Mojave Desert Preserve during a ‘Super Bloom’ year compared to a dry year, 48 remotely sensed images have been processed. For time and efficiencies sake code was developed to automate the processing of these 48 images and has resulted in the creation of two graphs. These graphs allowed for a visual comparison of yearly trends in vegetated surface area. In order to obtain the needed data to produce these graphs, the script performed the following actions after looping through relevant file paths: extracted Enhanced Vegetation Index (EVI) data layers from raw hdf files, masked the resulting files to the area of the Mojave Desert Preserve, normalized the EVI values with map algebra, used conditionals to return a raster layer containing a count of the cells of interest, modified existing tables to calculate needed values and finally aggregated the data from the 48 tables to two output tables. The two graphs clearly show and increase in detectable vegetation by remote sensors during wet years in the Mojave Desert Preserve.