Advanced Webinar: Investigating Time Series of Satellite Imagery

April 15 & 17, 2019
10:00-12:00 or 18:00-20:00 EDT (UTC-4)

Evaluating the satellite imagery of an area over time can be a way to identify trends and changes. This type of time series analysis can be used to assess forest disturbance, land cover changes, vegetation health, and agriculture monitoring and expansion. NASA Earth observations can provide long-term records from Landsat, and frequent imagery from sensors including MODIS. This training will focus on two tools, AppEEARS from the LPDAAC and LandTrendr via Google Earth Engine (GEE). AppEEARS enables users to integrate point or polygon ground-based data with satellite imagery. The GEE implementation of LandTrendr enables users to analyze land cover dynamics, including short-term disturbances and long-term trends. Both sessions will feature a lecture, followed by time for hands-on exercises and questions.

This training is targeted at advanced users of remote sensing data within local, regional, state, federal, and non-governmental organizations involved in land management and conservation efforts. Professional organizations in the public and private sectors engaged in environmental management and monitoring will be given preference over organizations focused primarily on research.

**Session 1: Introduction to Time Series Analysis & AppEEARS**

This session will include a review of MODIS and Landsat, a review of change detection, an overview of time series analysis methods, and an AppEEARS hands-on exercise.

**Session 2: LandTrendr Overview & Applications**

This session will include a review of LandTrendr’s capabilities, an overview of how to interpret outputs from LandTrendr, and a hands-on LandTrendr exercise.