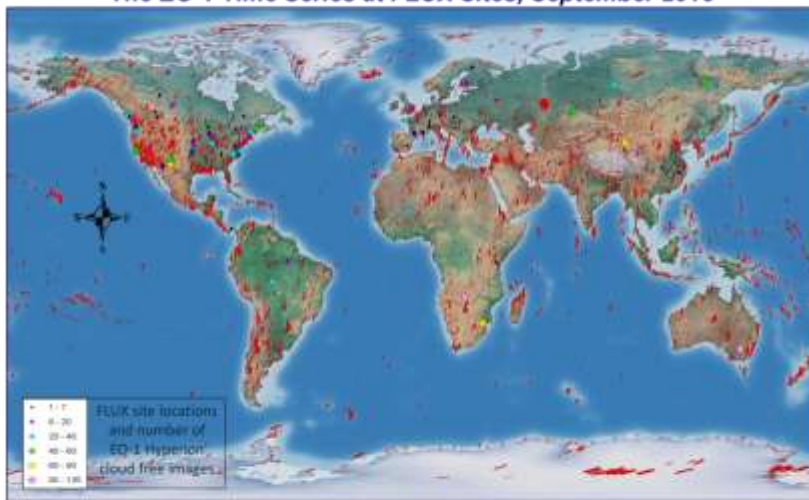


# 'Flexible' spectral time series for product validation and assessment of ecosystem productivity and bio-diversity

*Summary of two posters, Campbell et al.*

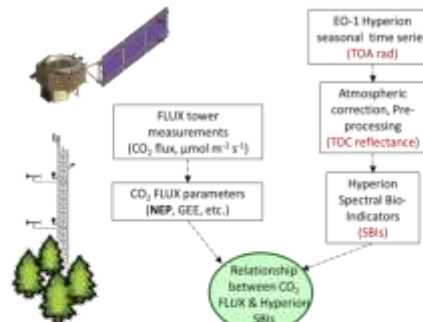
We use high spectral resolution images capturing the corresponding changes in multiple vegetation parameters or traits.

The EO-1 Time Series at FLUX Sites, September 2015



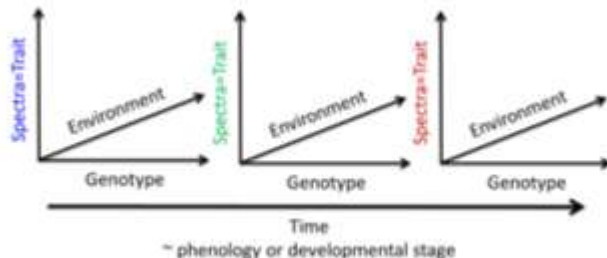
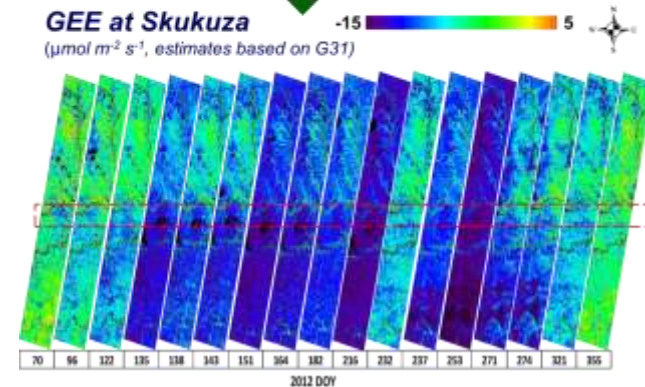
The Earth Observing One (EO-1) was launched in November 2000. As of September 2015 more than 85,000 Hyperion images have been collected. Hyperion has demonstrated the utility of satellite imaging spectroscopy for vegetation monitoring in applications relating to forestry, agriculture, land-use change, biodiversity, natural and anthropogenic hazards and disaster assessments. Numerous time series have been collected for select FLUX sites, which are freely available for download from USGS (<http://earthexplorer.usgs.gov/>).

## Data Collection and Processing

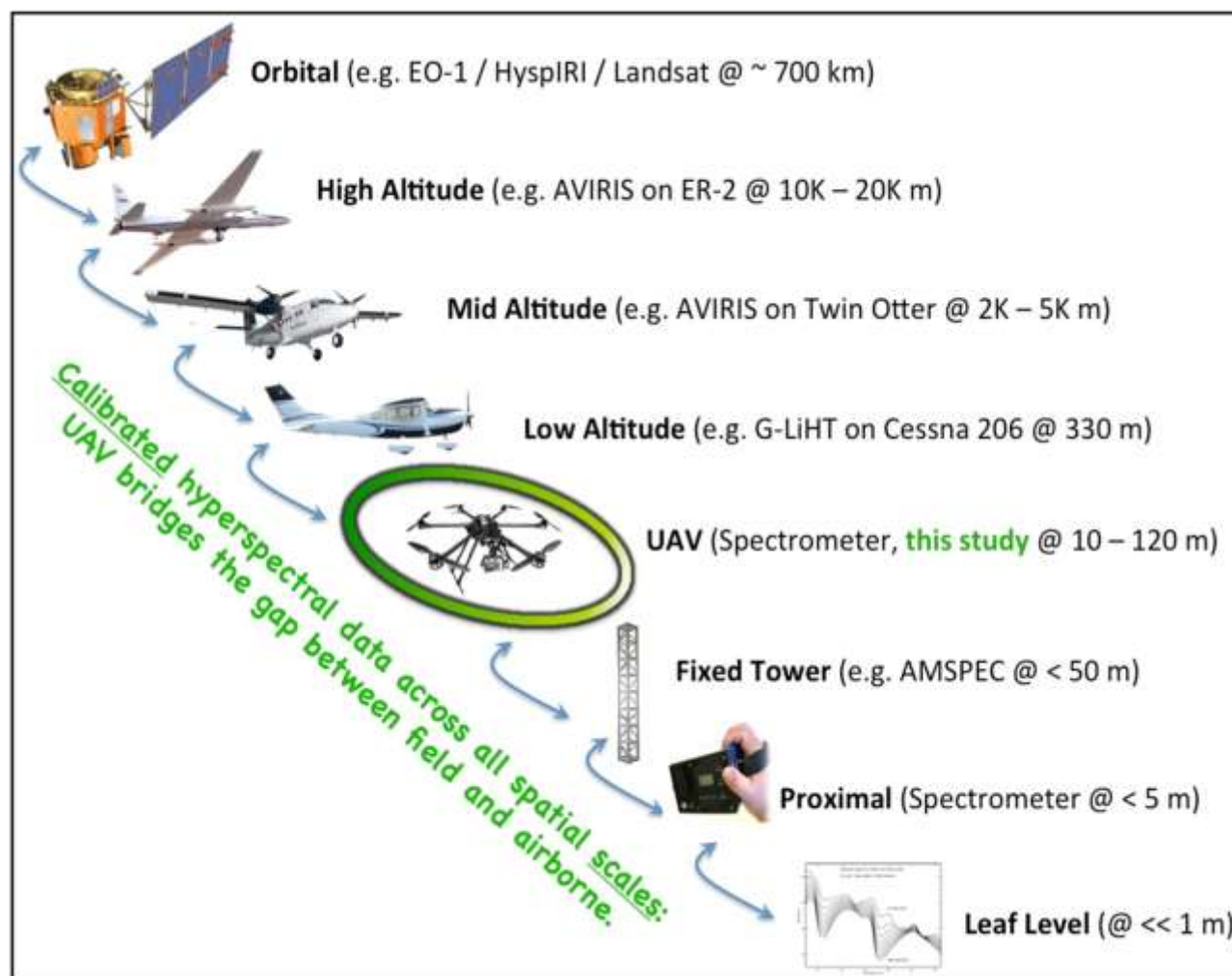


## GEE at Skukuza

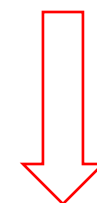
( $\mu\text{mol m}^{-2} \text{s}^{-1}$ , estimates based on G31)



- Traits/spectra vary over the course of a day and/or a growing season



Seasonal dynamics  
in vegetation traits



Seasonal and diurnal  
dynamics in  
vegetation traits



Diurnal dynamics in  
vegetation traits

**Spectral observations are required at all spatial scales, to bridge the gap and connect in situ with airborne and space observations and improve the monitoring of vegetation dynamics.**