

Departmental Seminar Announcement

The National Ecological Observatory Network (NEON): Linking remote sensing data to environmental chemistry

Dr. Kaelin Cawley
University of Colorado, Boulder: Hydrology

The National Ecological Observatory Network (NEON) is a continental scale observatory comprised of the Airborne Observation Platform (AOP), Terrestrial Instrument System (TIS), Terrestrial Observation System (TOS), Aquatic Instrument System (AIS), and Aquatic Observation System (AOS). The NEON Observatory covers ecohydrologic gradients in Alaska, Hawaii, Puerto Rico, and throughout the lower 48 states and is planned to operate over the next 30 years. Chemical measurements made by the TIS include ^{13}C in atmospheric carbon dioxide and ^{18}O in water vapor using high temporal resolution sensors. Elemental composition and stable isotopes (C, N, & P) will be measured periodically for soil, plant, litter, precipitation, surface water and groundwater samples as part of TOS and AOS. On an annual basis, AOP measurements of hyperspectral reflectance and lidar will be collected over the area where instrument systems are deployed and observational samples are collected. Collocation of measurements associated with each of these components will allow for linkage and comparison of data related to physical, chemical, and biological parameters. For example, remote sensing data provided by the Airborne Observation Platform (AOP) will link diversity and productivity data collected on individual plants and riparian areas by the observational subsystems. The standardization of protocols and procedures across all sites is another novel feature of NEON and will be maintained at all sites through time. Additionally, data processing is standardized such that quality controlled data products derived from NEON measurements are freely available through the data portal.

Date: Friday, February 24, 2017

Time: 11:00 am to 12:00 pm

Location: PG5 - 153 MMC (Live)

Marine Sciences Building Room 105 (MSB-105) – BBC (via Polycom)



**FLORIDA
INTERNATIONAL
UNIVERSITY**

Phone: 305-348-2605

Fax: 305-348-6700

E-mail: chemistry@fiu.edu

<http://chemistry.fiu.edu>