The AmeriFlux Management Project: Overview and the Year of Methane

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BER Program: TES
Project: AmeriFlux Management Project
Project Website: http://ameriflux.lbl.gov/

AmeriFlux is a network of sites and scientists measuring ecosystem carbon, water, and energy fluxes across the Americas using eddy covariance techniques. The DOE AmeriFlux Management Project (AMP) works to enhance the value of AmeriFlux for Earth system modeling, terrestrial ecosystem ecology, remote sensing, and many other fields. In February 2019, AmeriFlux registered its 400th site, three times the number of sites in 2012, and more than 75 of these measure methane fluxes. AMP is supporting operations of 14 clusters of long-term flux sites, maintaining the continuity of valuable time series. The connection with NSF’s National Ecological Observatory Network (NEON) is bearing fruit, with 30 NEON sites now registered in AmeriFlux and seamless data cooperation between the networks. AMP has teams dedicated to four tasks: Technical support and QA/QC, Data support and QA/QC, Outreach, and Core site support. This poster highlights our first-ever theme for network action, The Year of Methane. See AMP posters by Christianson and Pastorello on data processing and products; Biraud on the Rapid Response loaner system; and Chu on a footprint analysis tool under development.

The Year of Methane! AmeriFlux launched its first theme year for network action, centered on this important greenhouse gas, at an AGU Town Hall and the AmeriFlux PI Meeting. Through outreach, data, and tech activities, the theme year will enhance the quality and impact of methane flux measurements. (1) To promote community interaction we launched a new website for news, blogs, and events. In the next year we will hold a community workshop on Methane fluxes to encourage best-practices and data synthesis. (2) For technical resources, we are providing loaners of two fast-response methane sensors. We are measuring methane fluxes as part of the Tech-team site visits and providing CH₄ calibration gases to active sites. (3) To support methane-data processing and sharing, we have added new variables like water temperature to the standard file formats, and will assist with online data access curated by the Global Carbon Project FLUXNET Methane Synthesis project. We are partnering with the Global Carbon Project, Coastal Carbon RCN, Europe’s RINGO project, and others. The initiative is already leading to new sites in methane producing ecosystems and publishing new data on methane fluxes. Join the AmeriFlux Year of Methane community at ameriflux.lbl.gov/year-of-methane.