

The AmeriFlux Management Project: Overview and the Year of Methane

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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 2020, AmeriFlux registered its 475th site, double the number of sites it had five years ago. Moreover the network has tripled the number of wetland sites and sites measuring methane fluxes. AMP is supporting operations of 14 clusters of long-term flux sites, maintaining the continuity of valuable time series of flux data. The connection with NSF's *National Ecological Observatory Network (NEON)* is bearing fruit, with all 47 operational NEON sites now registered in AmeriFlux and efficient data transfer between the networks. AMP has teams dedicated to four tasks: Technical support and QA/QC, Data support and QA/QC, Outreach and Network Coordination, and Core site support. Abstracts by Christianson and Pastorello describe data processing and products and by Biraud describes the Rapid Response loaner system.

AmeriFlux carried out its first theme year for network action –The Year of Methane—with a variety of events and programs. To expand and improve methane eddy covariance data, we procured and loaned three LI-COR-7700 CH₄ analyzers, offered free CH₄ calibration gases to AmeriFlux sites, and a methane sensor was integrated into AMP site visits. To enhance data usability, we added methane-related variables, like water temperature, to the Flux/Met data standard, and contributed to a FLUXNET-CH₄ data synthesis product (Knox et al. 2019). There were dedicated methane sessions at the 2018 AmeriFlux Decadal Synthesis workshop and the 2018 and 2019 AmeriFlux Meetings. The number of sites sharing CH₄ flux data increased from 13 to 34 sites.

Knox, SB, RB Jackson, B Poulter, G McNicol, E Fluet-Chouinard, Z Zhang, et al. 2019. FLUXNET-CH₄ Synthesis activity: objectives, observations, and future directions. *Bulletin of the American Meteorological Society*, <https://doi.org/10.1175/BAMS-D-18-0268.1>