TEMPORAL AND SPATIAL VARIABILITY OF CO₂/CH₄ SOURCE/SINK STRENGTH IN NORDIC ECOSYSTEMS

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ABSTRACT

In 2003 a Nordic Centre of Excellence on Ecosystem Carbon Exchange and Its Interactions with the Climate System, NECC, was initiated. The center comprises practically all eddy covariance flux sites (ca. 25) in the Nordic countries which, represents wetlands, coniferous and deciduous forests, 'Kyoto' forests, lakes, agricultural sites and one urban site. The forest sites cover a range of age classes and management practices, and long-term sites with more than 8-10 years of continuous flux data. The center has also access to a flux aircraft for regional assessments and involves high precision CO_2 and CH_4 measurements in high towers. A synthesis of the current sink/source strength of CO_2 and CH_4 of the different ecosystems is in preparation and will be presented. Analysis of long-term data from a few sites and how it relates to annual parameters is also presented.