Geophysical Research Abstracts,
Vol. 10, EGU2008-A-02631, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-02631
EGU General Assembly 2008

CO_2 and CH_4 exchange on a northern boreal aapa mire

M. Aurela (1), T. Laurila (1), A. Lohila (1), J. Hatakka (1), J.-P. Tuovinen (1), T. Riutta (2), T. Penttilä (3), Y. Viisanen (1)

(1) Finnish Meteorological Institute, Helsinki, Finland, (2) University of Helsinki, Helsinki, Finland, (3) Finnish Forest Research Institute, Vantaa, Finland

Carbon dioxide and methane exchange between the atmosphere and the biosphere has been measured by the eddy covariance technique in a northern boreal aapa mire at Lompolojänkkä in Finland (67˚59'83" N, 24˚14'51" E, 269 m a.s.l.). The measurements were initiated in March 2005 and they have been continuous since then. The CH_4 flux measurements were started by using a FID/GC as a fast response CH_4 analyzer. In August 2006 this system was replaced by a Fast Methane Analyzer (Los Gatos Research Inc.). The site is part of Pallas-Sodankylä Global Atmosphere Watch (GAW) station and is presently a level 3 NitroEuropeIP. Here we present results on the CO_2 and CH_4 exchange at Lompolojänkkä: the controlling factors, seasonal and annual balances and the inter-annual variation.