

ESF WORKSHOP

BELOW-GROUND CARBON POOLS IN PERMAFROST REGIONS STOCKHOLM UNIVERSITY, GEOVETENSKAP, ROOM U36 NOVEMBER 24-26, 2005 PROGRAMME

Wednesday, November 23

Arrival in Stockholm

Thursday, November 24

09.15 Welcome, Introductory remarks (*P. Kuhry*)

09.30 Presentation of participants

Session 1: Soil carbon data bases (chair P. Kuhry)

09.45 C. Tarnocai. Canadian soil carbon data base, with emphasis on permafrost regions

10.15 G. Mazhitova. Regional soil and peat carbon data bases in European Russia

10.45 Coffee break

11.00 E.-M. Pfeiffer. Soil carbon assessments in Northeast-Siberia

11.30 M. Johansson. Changes in permafrost in sub-arctic Sweden in relation to climate change

12.00 Discussion on soil carbon data bases

12.30 Lunch on the University Campus

Session 2: Soil carbon chemistry (chair P. Crill)

13.45 E. Dorrepaal. Decomposition in northern peatlands: relations with climate, plant growth forms, chemistry and age

14.15 G. Broll. Carbon pools of frost-affected soils at the interface between aboveground and belowground: identification, spatial variability and monitoring

14.45 S. Sjögersten. Soil organic matter chemistry in subarctic and arctic soils - the importance of above-ground vegetation

15.15 Break

15.30 O. Gustafsson. Age and chemical composition of arctic river DOC

16.00 T. Johansson. Climate change and vegetation dynamics in Stordalen Mire

16.30 H. Quested. To what extent can ecosystem decomposition rates be linked to simple plant traits ?

17.00 Discussion on geochemical techniques to assess SOM quality

17.30 Free evening

Friday, November 25

Session 3: Carbon flux studies (chair C. Tarnocai)

09.15 D. Zamolodchikov. Carbon fluxes in permafrost environments of Northern Russia

09.45 J. Huttunen. Importance of winter in the annual greenhouse gas emissions from northern hydro reservoirs

10.15 E.-M. Pfeiffer. Methane fluxes in different permafrost sites of Siberia

- 10.45 Coffee break
- 11.00 P. Kuhry. Land physical changes and permafrost dynamics
- 11.30 P. Crill. Carbon fluxes in the discontinuous permafrost zone of northern Sweden
- 12.00 Discussion on linking carbon fluxes and pools
- 12.30 Lunch on the University Campus

Session 4: Upscaling, integrated assessments and modelling (chair E.-M. Pfeiffer)

- 13.45 T. Virtanen. GIS-upscaling of carbon stock and flux measurements in Northeast European Russia
- 14.15 T. Christensen. Towards an integrated carbon budget for the Torneträsk catchment, subarctic Sweden
- 14.45 J. Boelhouwers. Antarctic permafrost and soils
- 15.15 Break
- 15.30 M. Reichstein. Approaches to soil carbon balance modelling from process level to global scale
- 16.00 C. Beer. Permafrost modelling within a biogeochemical process model on global scale
- 16.30 A. Rinke. Influence of land surface/soil schemes on arctic regional climate simulations
- 17.00 Discussion on upscaling, integration and modelling
- 17.30 Closing
- 18.00 Workshop Dinner in Restaurant Cypren, Valhallavägen 50

Saturday, November 26

- 09.15 *General discussion 1: links and synergies (chair E.-M. Pfeiffer)*
- 10.45 Coffee break
- 11.00 *General discussion 2: knowledge gaps and future research (chair P. Kuhry)*
- 12.30 Concluding remarks
- 12.45 End of meeting

Sunday, November 27

Departure from Stockholm

Posters

- M. Repo.
Comparison of Methane Fluxes between Middle Taiga and Forest Tundra Wetlands in Western Siberia
- B. Sannel.
Climate and ground dynamics in a peat plateau / thermokarst lake complex, northern Sweden
- B. van Dongen and J. Vonk.
Is Arctic climate warming causing remobilization of the huge reservoir of tundra-taiga soil carbon ?
- M. Braakhekke et al.
Modeling soil CO₂ production and transport with the SVAT-model SWAPS-C.