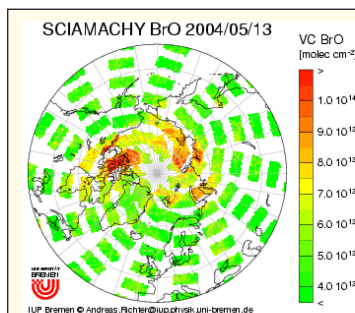


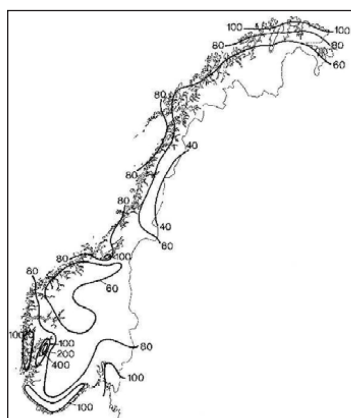
The Norwegian nationwide moss surveys have demonstrated elevated concentrations of mercury in moss growing at the Arctic coast. Gaseous elemental mercury (GEM) was measured during one year at the sub Arctic location Andøya, to see whether the high concentrations of mercury in moss were due to Arctic Mercury Depletion Events (AMDE).

Samples of natural soil from the northern part of Norway were also analysed, too see whether natural soil have the same pattern as moss. A few episodes of AMDE with concentrations of GEM between 0.5 and 1.0 were seen at Andøya, but they were not as pronounced as at the high Arctic station Zeppelin, located at Spitsbergen.

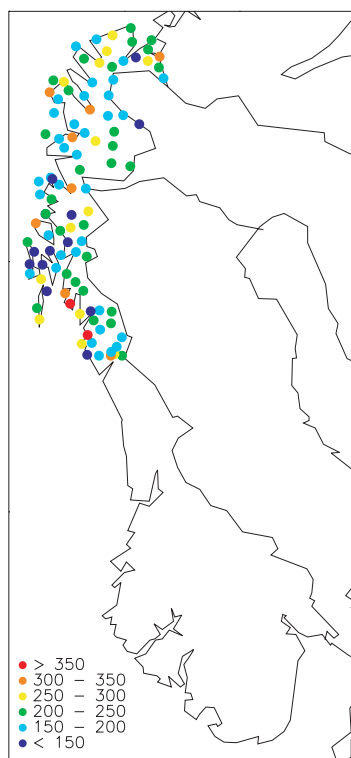
The lowest concentration measured at Andøya was 0.5 ng/m³. Air mass trajectories and BrO maps showed that AMDE episodes at Andøya mainly was related to atmospheric transport episodes. There is reason to believe that AMDE may contribute to the increased concentrations in moss at the Arctic coast, however oxidized species of mercury still remain to be measured. The natural soil showed a less pronounced pattern than the moss.



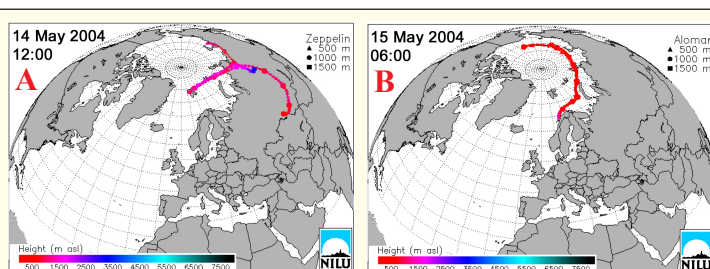
BrO map showing average BrO column 13. May 2004.



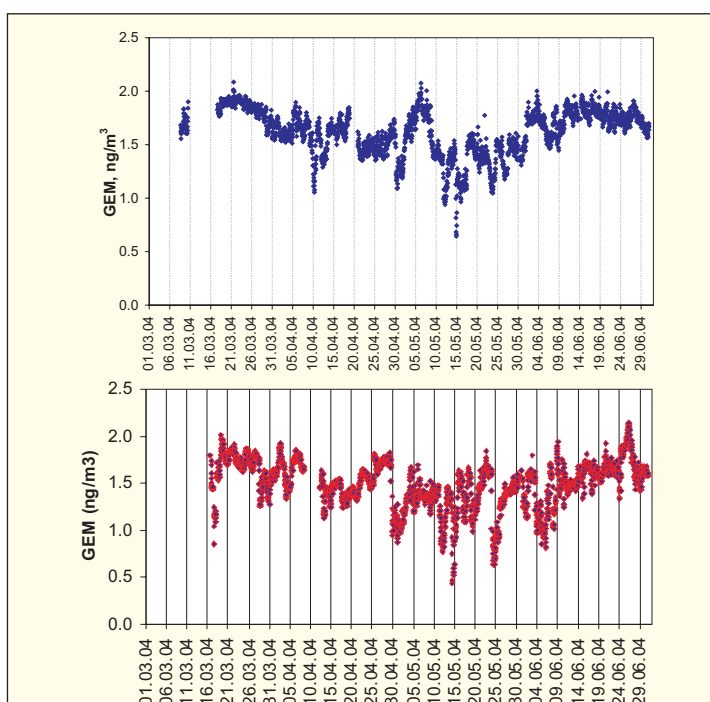
Concentrations of Hg (ng/g) in moss (*Hylocomium splendens*) in Norway, 1995.



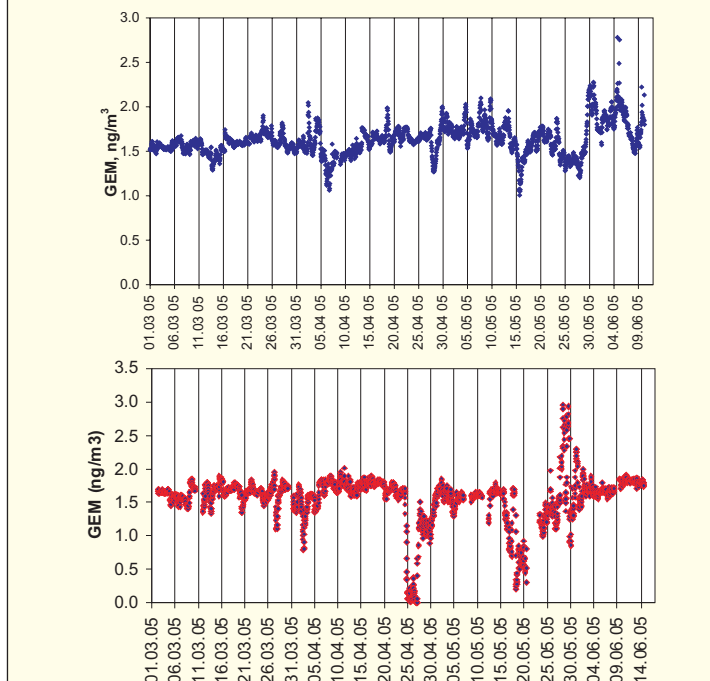
Concentrations of Hg (ug/g) in natural soil in Norway, 1995.



A: 7 days airmass trajectory ending at Zeppelin 15. May 2004, B: 7 days airmass trajectory ending at Andøya 14. May 2004.



GEM at Andøya (blue) and Zeppelin (red) spring, 2004



GEM at Andøya (blue) and Zeppelin (red) spring, 2005

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