

# Publications 1990-2002 at the former Department of Forest Soils

## 1990

**Berg, B., 1990.** Summary chapter: turnover of nutrients in ecosystems. In: Nutrient cycling in terrestrial ecosystems: field methods, application and interpretation [edited by Harrison. A. F., Ineson, P. and Heal, O. W.] 315-321. Barking, UK; Elsevier Applied Science Publishers Ltd.

Booth, C., Eriksson, H., Moller, G., Pettersson, F., Nykvist, N., **Olsson, M., Lundin, L.**, Persson, H., Ahlstrom, K., Zundel, P., Tham, A. (ed.). & Mard, H. **1990.** Changes to forest management and silvicultural techniques necessitated by forest energy production. International Energy Agency/Bioenergy Agreement, Activity A1. Conventional Forestry Systems. Rapport Institutionen för Skogsproduktion, Sveriges Lantbruksuniversitet. No. 27, 153 pp.

Danielsson B.-O., Eriksson, H., Eriksson, M., Lundström, A., Lönnér, G., Lönnstedt, L., Nilsson, P.-O., Nyström, K., **Rosén, K.**, Söderberg, U. och Törnqvist, A. **1990.** Inventeringsstudie biobränslepotential i södra Sverige. (Projekt Skogskraft, SÖDRA och Vattenfall) FUD-rapport U(B) 1990/40.

Dyer, M. L., Meentemeyer, V. & **Berg, B. 1990.** Apparent controls of mass loss rate of leaf litter on a regional scale: Litter quality versus climate. Scandinavian Journal of Forest Research 5(3): 311-324.

**Eriksson, H. 1990.** Early results from a wood ash application experiment in Central Sweden: In Changes to forest management and silvicultural techniques necessitated by forest energy production, IEA/BE A1 Workshop, Ed. Å. Tham & H. Mård. Inst f skogsproduktion, Rapport nr 27:35-40, SLU, Garpenberg.

Höstmark, AK. S., Madsen, HB., **Lundin, L.**, & Riley, H. **1990.** Water retention curves on Nordic tills. Hydrogeological properties of Nordic tills, ed. S. Haldorsen. NHP Report No 25:147-167.

Lind, B.B. & **Lundin, L. 1990.** Saturated hydraulic conductivity of Scandinavian tills. Nordic Hydrology 21(2): 107-118.

**Lundin, L. 1990.** Vattenmiljön vid våtmarksdikning. Sveriges Skogsvårdsförbunds Tidskrift. 1990, No. 1: 36-47.

**Lundin, L. & Bergquist, B. 1990.** Effects on water chemistry after drainage of a bog for forestry. Hydrobiologia 196(2):167-181.

Madsen, H.B., Riley, H. & **Lundin, L. 1990.** Methods used for calculation of plant available water in Nordic till soils. Nordic Hydrology 21(2):141-152.

**Nilsson, T. 1990.** Tallen växer bättre. Gödsla med torv- och vedaska. Skogen 1990, nr 1: 24-26.

**Nõmmik, H. 1990.** Application of  $^{15}\text{N}$  as a tracer in studying fertiliser nitrogen transformations and recovery in coniferous ecosystems. Nutrient cycling in terrestrial ecosystems: field methods, application and interpretation [edited by Harrison, A.F.; Ineson, P.; Heal, O.W.] 276-290. Barking, UK; Elsevier Applied Science Publishers Ltd

Norden, B. & **Berg, B. 1990.** A non-destructive method (solid state  $^{13}\text{CNMR}$ ) for determining organic chemical components of decomposing litter. Soil Biology and Biochemistry 22(2): 271-275.

**Olsson, M. T. & Melkerud, P.-A. 1990.** Long-term translocation of Fe and Al in Podzols. In The surface waters acidification programme (B. J. Mason ed.). Phil. Trans. R. Soc. London 237-244.

**Olsson, M. T. & Troedsson, T. 1990.** Soil forming factors and spodosol properties in Sweden. In Proceedings from the Fifth International Soil Correlation Meeting (ISCOM), Characterization, classification, and utilization of spodosols. Maine, Massachusetts, New Hampshire, New York, Vermont, and New Brunswick, October 1-14 1987 (J.M. Kimble and R.D. Yeck eds). pp 422-432

**Rosén, K. 1990.** Measuring nutrient input to terrestrial ecosystems. Nutrient cycling in terrestrial ecosystems: field methods, application and interpretation [edited by Harrison. A. F.; Ineson, P. and Heal, O. W.] 1-10. Barking, UK; Elsevier Applied Science Publishers Ltd.

Sverdrup, H., Warfvinge, P. & **Rosén, K. 1990.** A model for the impact of the soil solution Ca:Al ratio on tree base cation uptake. Water, Air and Soil Pollution 48:451-456.

## 1991

**Berg, B. 1991.** Live fungal (FDA) mycelium and lignin concentrations in some needle and leaf litter types. Scandinavian Journal of Forest Research 6: 451-462.

**Berg, B. 1991.** The effect of the plant and soil biota on soil organic matter turnover. In; N. v. Bremen (Ed), Decomposition and accumulation of organic matter in terrestrial ecosystems; Research priorities and approaches. Doorwerth, September 2-4, 1991. pp 81-88.

**Berg, B. 1991.** Klimatförändringar påverkar marken - Några möjliga effekter av ett förändrat klimat på organiskt material i skogsmark. Skogsfakta No 10.

**Berg, B.**, Bootink, H.G.W, Breymer, A., Ewertsson, A., Gallardo, A., Holm, B., Johansson, M.-B., Koivuoja, S., Meentemeyer, V., Nyman, P., Olofsson, J., Pettersson, A.-S., Reursslag, A., Staaf, H., Staaf, I., & Uba, L. **1991.** Data on needle litter decomposition and soil climate as well as site characteristics for some coniferous forest sites. 2nd ed. Section 1. Data on site characteristics. Swedish University of Agricultural Sciences. Department of Ecology and Environmental Research. Report No 41.

**Berg, B.**, Bootink, H.G.W, Breymer, A., Ewertsson, A., Gallardo, A., Holm, B., **Johansson, M.-B.**, Koivuoja, S., Meentemeyer, V., Nyman, P., Olofsson, J., Pettersson, A.-S., Staaf, H., Staaf, I., & Uba, L. **1991.** Data on needle litter decomposition and soil climate as well as site characteristics for some coniferous forest sites. 2nd ed. Section 2. Data on needle litter decomposition. Swedish University of Agricultural Sciences. Department of Ecology and Environmental Research. Report No 42.

**Berg, B.** & Ekbohm, G. **1991.** Litter mass-loss rates and decomposition patterns in some needle and leaf litter types. Long-term decomposition in a Scots pine forest VII. Canadian Journal of Botany 69:1449-1456.

**Berg, B.**, Ekbohm, G., Söderström, B. & Staaf, H. **1991.** Reduction of decomposition rates of Scots pine needle litter due to heavy metal pollution. Water, Air, and Soil Pollution 69: 165-177.

**Berg, B.**, Jansson, P.E., Olofsson, J. & Reursslag, A.M. **1991.** Decomposition rates of Scots pine needle litter in a climatic transect in N.-W. Europe. Swedish University of Agricultural Sciences, Department of Ecology and Environmental Research. Report No 46.

**Berg, B.** & Tamm, C.O. **1991.** Decomposition and nutrient dynamics of litter in long-term optimum nutrition experiments. I. Organic matter decomposition in Norway spruce (*Picea abies*) needle litter. Scandinavian Journal of Forest Research 6:305-321.

**Berg, B.**, & Tamm, C.O. **1991.** Decomposition and nutrient dynamics of Norway spruce needle litter in a long-term optimum nutrition experiment. I. Organic matter decomposition. Swedish University of Agricultural Sciences. Department of Ecology and Environmental Sciences, Report No 39.

**Berg, B.** & Tamm, C.O. **1991.** Decomposition and nutrient dynamics of Norway spruce needle litter in a long-term optimum nutrition experiment. II. Nutrient dynamics. Swedish University of Agricultural Sciences. Department of Ecology and Environmental Sciences, Report No 39.

**Berg, B.** & Tamm, C.O. **1991.** Decomposition and nutrient dynamics of Norway spruce needle litter in a long-term optimum nutrition experiment. III. The influence of a denser forest on litter decomposition rates. Swedish University of Agricultural Sciences. Department of Ecology and Environmental Sciences, Report No 39.

**Berg, B.**, Tamm, C.O. & Aronsson, A. **1991.** The influence of stand density and litter quality on litter decomposition rates in manipulated Scots pine forests. The effect of fertilization and irrigation. Swedish University of Agricultural Sciences. Department of Ecology and Environmental Research. Report No 43. 22 pp.

**Eriksson, H.**, **1991.** Sources and sinks of carbon dioxide in Sweden. Ambio 20(3-4):146-150.

**Eriksson, H.** **1991.** Effekter av olika aktiviteter inom jord- och skogsbruk på den svenska koldioxidbalansen. Bilaga 1 i Växthusgaserna - utsläpp och åtgärder i ett internationellt perspektiv. Naturvårdsverket, Rapport 4011.

Fredriksson, G., Hallbäcken, L., **Lundmark, J-E.** & Nilsson, I. **1991.** Luftföroreningarnas effekter på skogsmarken. SLU. Skogsfakta nr 8.

**Johansson, M.-B.** **1991.** The influence of soil scarification on the turn-over rate of organic matter and nitrogen release at clear-cut areas in the north of Sweden. Finnish Humus News, Vol.3(2).

**Johansson, M.-B.** **1991.** The influence of soil scarification on the turn-over rate of organic matter and nitrogen release at clear-cut areas in Central Sweden. Finnish Humus News, Vol. 3(3).

**Johansson, M.-B.** **1991.** Markförsurning i Uppsala län. Resultat från undersökningen 1990 samt utvärdering av mätvärden från 1983-90. Meddelanden från Länsstyrelsen nr

8. Länsstyrelsen Uppsala län.

**Karlton, E. 1991.** Geographical differences in acidification in deep soil profiles as measured by exchangeable cation status and sulphuric acid potential. In: Selinus, O. (ed), 2nd International Symposium on Environmental Geochemistry (Abstracts). SGU Rapporter och Meddelanden nr. 69.

**Lundin, L. 1991.** Retention or loss of nitrogen in forest wetlands. Vatten 47(4):301-304.

**Lundin, L. 1991.** Influence of silviculture on content of organic matter and metals in water. 3:re Int. Nord. Symp.on Humic Substances. Aug. 21-23, 1991, Turku/Åbo, Finland. Finnish Humus News 3:21-26.

**Melkerud, P.-A. 1991.** The importance of fine-textured material for chemical weathering, soil formation and aluminium mobilization. Rapporter i skogsekologi och skoglig marklära 63:119-138; 2 append., Reports from a Nordic Seminar, 27-28 September 1990, Wik, Uppsala, Sweden.

**Odell, G. & Drakenberg, B. 1991.** Atlas över skogsmarkväxters förekomst i Sverige. Rapporter i skogsekologi och skoglig marklära 64. Swedish University of Agricultural Sciences, Uppsala.

**Olsson, M.T. & Lundin, L. 1991.** Determination of weathering rates and base cation budgets - an example from glacial till in central Sweden. In Changes to forest management and silvicultural techniques necessitated by forest energy production (Å. Tham and H. Mård eds.), pp. 111 - 122.

**Olsson, M. & Melkerud, P.-A. 1991.** Determination of weathering rates based on geochemical properties of the soil. Environmental geochemistry in Northern Europe ( E. Pulkkinen ed.) Proceedings of a Symposium held in Rovaniemi, Finland, 17-19 October, 1989. Special Paper - Geological Survey of Finland. 1991, No. 9, 69-78.

**Olsson, M. & Melkerud, P.-A. 1991.** Weathering rates in mafic soil mineral material. In Chemical Weathering under Field Conditions (K. Rosén ed.). Rapporter i skogsekologi och skoglig marklära 63:63-78. Reports from a Nordic Seminar, 27-28 September 1990, Wik, Uppsala, Sweden.

**Olsson, M. & Melkerud P.-A.; Batjes-N.H. (ed.), Bridges-E. M. 1991.** Mapping of geochemical composition and weathering rates of forest land in Sweden. Mapping of soil and terrain vulnerability to specified chemical compounds in Europe at a scale of 1:5 M: proceedings of an international workshop held at Wageningen, Netherlands, 20-23 March 1991. 163. International Soil Reference and Information Centre, Wageningen, Netherlands

Rodhe, H. & **Eriksson, H.** M., Robertson, K. & Svensson, B. H. **1991.** Sources and sinks of greenhouse gases in Sweden: A case study. Ambio 20(3-4): 143-145.

**Rosén, K. 1991.** Chemical weathering under field conditions. Rapporter i skogsekologi och skoglig marklära 63, 185 pp., Reports from a Nordic Seminar, 27-28 September 1990, Wik, Uppsala, Sweden.

**Wiklander, G., Nordlander, G. & Andersson, R. 1991.** Leaching of nitrogen from a forest catchment at Söderåsen in southern Sweden. Water, Air, and Soil Pollution 55 (3-4):263-282.

## 1992

**Berg, B.** 1992. Under vilka trädslag bildas mest humus. Skogsfakta Nr 10.

**Berg, B.**, McClaugherty, C. & **Johansson, M.-B.** 1992. Litter mass-loss rates in late stages of decomposition at some climatically and nutritionally different pine sites, a study on the effects of climate change. Reports in Forest Ecology and Forest Soils 67. Swedish University of Agricultural Sciences.

Brodin, Y. W., Kessler, E. (Editors), Kuylensierna, J. C. I., Lovblad, G. Amann, M., Andersen, B., Hovmand, M., Joffre, S., Pedersen, U., Sverdrup, H., Warfvinge, P., Frogner, T., Haoya, A. O., Johansson, M., Henriksen, A., Kamari, J., Posch, M., Wilander, A., **Rosén, K.**, Gundersen, P., **Tegnhammar, L.**, Holmberg, M., Wright, R.F., Chadwick, M.-J., Hettelingh, J. P. 1992. Special issue: critical loads in Nordic countries. Ambio 21(5):331-387.

Eriksson, E., **Karlton, E.** & **Lundmark, J. E.** 1992. Acidification of forest soils in Sweden. Ambio 21(2):150-154.

**Eriksson, H.** & Hallsby, G. 1992. Biomass fuels - Effects on the carbon dioxide budget. NUTEK, Stockholm, R 1992:10.

**Johansson, M.-B.** 1992. The influence of disk trenching on the turn-over rate of soil organic matter and nutrient release. Reports in Forest Ecology and Forest Soils 66. Dept. of Forest Soils, Swed. Univ. of Agric. Sci. Uppsala.

**Lundin, L.** 1992. Hydrology and hydrochemistry at subbasins of a large sedge fen watershed and effects of drainage and peat-winning. proc. of the 9:th Int. Peat. Congr. Uppsala, Sweden, 22-26 June 1992. 1:143-157.

**Lundin, L.** & **Nilsson, T.** 1992. Effects of drainage on air temperature at a bog in west central Sweden. Proc. of the 9th Intern. Peat Congress, Uppsala, Sweden, 22-26 June 1992. Vol 3: 241.

Meentemeyer, V. & **Berg, B.** 1992. Measurements of geographic variation in the decay rates of pine needle litters across Western and Central Europe and portions of North America. Georgia Academy of Sciences Meeting.

Meentemeyer, V. & **Berg, B.** 1992. The breakdown of pine needle litter: Control by climate and litter quality at continental scales. Presentation at the University System Symposium on Environmental Research. May 8-9, 1992

**Melkerud, P.-A. Olsson, M. T. & Rosén K.** 1992. Geochemical atlas of Swedish forest soils. Rapporter i skogsekologi och skoglig marklära 65, 86 pp. Swedish University of Agricultural Sciences, Uppsala, Sweden

**Nilsson, T.** 1992. Plant growth of six different tree species on a cutover peat area fertilized with wood ash. Proc. of the 9th Intern. Peat Congress, Uppsala, Sweden, 22-26 June 1992. Vol 3: 243.

**Nilsson, T.** 1992. Effects of drainage intensity and PK fertilization on the growth and needle nutrient contents of Scots pine on a cutover peat area in west central Sweden. Proc. 9th Intern. Peat Congress, Uppsala, Sweden, 22-26 June, 1992. Vol 2: 315-325.

**Nilsson, T. & Lundin, L.** 1992. Measured and simulated temperature and moisture in a

peat soil in west central Sweden. Proc. of the 9th Intern. Peat Congress, Uppsala, Sweden, 22-26 June 1992. Vol 3: 242.

**Rosén, K.**, Gundersen, P., **Tegnhammar, L.**, Johansson, M. & Frogner, T. **1992**. Nitrogen enrichment of Nordic forest ecosystems. The concept of critical loads. Special issue: critical loads in Nordic countries [edited by Brodin, Y.W.; Kessler, E.]. Ambio 21(5):364-368.

Sverdrup H., Warfvinge P. & **Rosén K. 1992**. A model for the impact of soil solution Ca:Al ratio, soil moisture and temperature on tree base cation uptake. Water, Air, and Soil Pollution 61(3-4):365-383.

## 1993

**Berg, B.**, Berg, M., Bottner,P., Box, E., Breymeyer,A., Calvo de Anta,R., Couteaux, M., Gallardo, A., Escudero, A., Kratz, W., Madeira,M., Meentemeyer,V., Muñoz, F., Piussi,P., Remacle, J., & Virzo De Santo, A. **1993**. Litter mass loss in pine forests versus actual evapotranspiration on a European scale. In: A. Breymeyer (Ed). Conference Papers 18. Proceedings from Scope Seminar. Geography of Carbon Budget Processes in Terrestrial Ecosystems. Szymbark, Aug. 17-23, 1991, pp 81-109.

**Berg, B.**, Berg, M., Bottner,P., Box, E., Breymeyer, A., Calvo de Anta, R., Couteaux, M., Gallardo, A., Escudero, A., Kratz, W., Madeira, M., Mälkönen, E., Meentemeyer,V., Muñoz, F., Piussi,P., Remacle, J., & Virzo De Santo, A. **1993**. Litter mass loss in pine forests of Europe and Eastern united States as compared to actual evapotranspiration on a European scale. Biogeochemistry 20:127-153.

**Berg, B.**, Berg, M., Cortina, J., Escudero, A., Gallardo, A., **Johansson, M.-B.** & Madeira, M. **1993**. Soil organic matter in some European coniferous forests. In: A. Breymeyer (Ed). Proceedings fom Scope Seminar. Conference Papers 18. Geography of Carbon Budget Processes in Terrestrial Ecosystems. Szymbark, Aug. 17-23, 1991, pp 111-122

**Berg, B.**, Berg, M., Flower-Ellis, J.G. K., Gallardo, A., **Johansson, M.-B.**, **Lundmark, J.-E.** & Madeira, M. **1993**. Amounts of litterfall in some European Coniferous Forests. In: A. Breymeyer (Ed). Proceedings from Scope Seminar. Conference Papers 18. Geography of Carbon Budget Processes in Terrestrial 1991 Ecosystems. Szymbark, Aug. 17-23, 1991, pp 123-146.

**Berg, B.** & Ekbohm, G. **1993**. Decomposing needle litter in Lodgepole pine (*Pinus contorta*) and Scots pine (*Pinus sylvestris*) monocultural systems. Is there a maximum mass loss? Scandinavian Journal of Forest Research 8:457-465.

**Berg, B.**, McClaugherty, C. & **Johansson, M.-B.** **1993**. Litter mass-loss rates in late stages of decomposition at some climatically and nutritionally different pine sites. Long-term decomposition in a Scots pine forest. VIII. Canadian Journal of Botany 71(5):680-692.

**Berg, B.**, McClaugherty, C., Virzo De Santo, A., **Johansson, M.-B.** & Ekbohm, G. **1993**. Decomposition of litter and soil organic matter - can we distinguish a mechanism for soil organic matter buildup? In: Role of invertebrates and microorganisms in decomposition and soil organic matter formation. (H. Insam ed.) Innsbruck, April 22-26, 1993. Mitteilungen der Österreichischen bodenkundlichen Gesellschaft Heft 47;11-41.

**Johansson, M.-B. 1993.** Biomass, decomposition and nutrient release of bilberry (*Vaccinium myrtillus*) leaf litter in four woodland Soils. Scandinavian Journal of Forest Research 8:466-479.

**Johansson, M.-B. 1993.** The influence of soil scarification on the turn-over rate of slash needles and nutrient release. Scandinavian Journal of Forest Research 9:170-174.

**Karlton, E. & Gustafsson, J. P. 1993.** Interference by organic complexation of Fe and Al and the SO<sub>4</sub><sup>2-</sup> adsorption in spodic B-horizons in Sweden. Journal of Soil Science 44:625-632.

Laskowski, R. & **Berg, B. 1993.** Dynamics of some mineral nutrients and heavy metals in decomposing forest litter. Scandinavian Journal of Forest Research 8:446-456.

**Lundin, L. 1993.** Impacts of forest drainage on flow regime. Studia Forestalia Suecica 192, 22 pp.

**Olsson, M., 1993.** Soils in northern Fennoscandia and Kola Peninsula from an environmental point of view - monitoring and present state. In Symposium on the State of the Environment and Environmental Monitoring an Northern Fennoscandia and the Kola Peninsula (E.Tikkanen, M.Varmola & T.Katermaa eds.). Arctic Centre Publications 4. Rovaniemi. 51 - 64.

**Olsson, M., Rosén, K. & Melkerud, P.-A. 1993.** Regional modelling of base cation losses from Swedish forest soils due to whole-tree harvesting. Applied. Geochemistry, Suppl. Issue 2:189-194.

Reurslag, A.M. & **Berg, B. 1993.** Rapport över litteraturstudie rörande mängd och kemisk sammansättning av fallförrna samt mängd av organiskt material i skogsmark. Vattenfalls rapportserie No UB 1993/2 110 pp. (English summary).

**Rosén, K., Eriksson, H., Clarholm, M., Lundkvist, H. & Rudebeck, A. 1993.** Granulerad vedaska till skog på fastmark - Ekologiska effekter. NUTEK, Stockholm, R 1993:26.

Virzo De Santo, A., **Berg, B., Rutigliano,F., Alfani, A., & Fioretto, A. 1993.** Factors regulating early-stage decomposition of needle litters in five different coniferous forests. Soil Biology and Biochemistry 25:1423-1433.

## 1994

**Alriksson, A., Eriksson, J., Olsson, M.T., Messing, I. & Wiklander, G. 1994.** Markutveckling i beskogad åkermark. Markdagen 1994 - Forskningsnytt om mark. Skogsfakta 19:5-8. Sveriges lantbruksuniversitet, Uppsala.

**Alriksson, A. & Olsson, M. T. 1994.** Soil changes in afforested farmland. Transactions from 15th World Congress of Soil Science, Acapulco, Mexico 10-16 July 1994. Vol 7b: Comission VI: Poster sessions pp 45-46.

**Berg, B. & Johansson, M.-B. 1994.** Barrträdens fallförrna bryts inte ned fullständigt - ett användbart verktyg att beräkna humuslagrets uppbyggnad. Report from a Soil Science symposium held at Swedish University of Agricultural Sciences Nov 8th, 1994.

**Berg, B. & Tamm, C.O. 1994.** Decomposition and nutrient dynamics of litter in long-

term optimum nutrition experiments. II. Nutrient concentration changes in decomposing Norway spruce (*Picea abies*) needle litter. Scandinavian Journal of Forest Research 9:99-105.

Couteaux, M.-M., Bottner, P. & **Berg, B.** 1994. Litter decomposition, climate and litter quality. Trends in Ecology and Evolution 10(2):63-66.

**Eriksson, H.** 1994. Skogens roll i Sveriges koldioxidbudget. Bilaga 2 i SOU 1994:138 Rapport från Klimatdelegationen 1994

**Eriksson, H. M.** 1994. Recycling of wood ash in Sweden - An overview. In Environmental Impacts of Bioenergy, Ed. C. P. Mitchell & A. V. Bridgewater. IEA Bioenergy Agreement Seminar Sept 1993, Snekkerten, Denmark.

**Eriksson, H. M.** & Ericson, S.-O. 1994. Miljöpåverkan av ökat biobränsleutnyttjande. Rapport inlämnad till Miljö- och naturresursdepartementet i oktober 1994.

**Eriksson, H. M.** & Jönsson, C. 1994. Four tree species and the calcium, magnesium, and potassium budgets of a Swedish forest site. New Zealand Journal of Forestry Science 24 (2/3):415-426.

**Eriksson, H.M. & Rosén, K.** 1994. Nutrient distribution in a Swedish tree species experiment. Plant and Soil 164:51-59.

**Holmgren, P.** 1994. Topographic and geochemical influence on the forest site quality, with respect to *Pinus sylvestris* and *Picea abies* in Sweden. Scandinavian Journal of Forest Research 9(1):75-82.

**Holmgren, P.** 1994. Multiple flow direction algorithms for runoff modelling in grid based elevation models, an empirical evaluation. Hydrological Processes 8(4):327-334.

**Holmgren, P.**, Masakha, E.J. & Sjöholm, H. 1994. Not all African Land is Being Degraded: A Recent Survey of Trees on Farms in Kenya Reveals Rapidly Increasing Forest Resources. Ambio 23(7):390-395.

Iritz, L., Johansson, B. & **Lundin, L.** 1994. Impacts of forest drainage on floods. Hydrological Sciences Journal 39: 637-661.

**Johansson, M.-B.** 1994. The influence of soil scarification on the turn-over rate of slash needles and nutrient release. Scandinavian Journal of Forest Research 9:170-179.

**Johansson, M.-B.** 1994. Decomposition rates of Scots pine needle litter related to site properties, litter quality, and climate. Canadian Journal of Forest Research 24 (9):1771-1781.

Jönsson, C., **Berg, B.** & Sverdrup, H. 1994. Developping a model of organic matter decomposition based on field and laboratory experiments. 1. Effect of temperature, moisture and acidity. Reports in Ecology and Environmental Engineering 1994:1. Department of Chemical Engineering II. University of Lund, Lund.

**Karlton, E.** 1994. Principal geographic variations in the acidification of Swedish forest soils. Water, Air, and Soil Pollution 76:353-362.

**Karlton, E.** 1994. Ståndortskarteringen - ett trendkänsligt instrument för miljöövervakning. Markdagen 1994 - Forskningsnytt om mark. Skogsfakta 19:61-66. Sveriges lantbruksuniversitet, Uppsala.

**Karlton, E. 1994.** The determination of adsorbed sulfate with isotopic dilution of  $^{35}\text{S}$  compared with  $\text{Ca}(\text{H}_2\text{PO}_4)_2$  extraction. Communications in Soil Science and Plant Analysis 25:207-214.

**Karlton, E. 1994.** Ständortskarteringen - ett trendkänsligt instrument för miljöövervakning. Markdagen 1994 - Forskningsnytt om mark. Skogsfakta 19:61-66. Sveriges lantbruksuniversitet, Uppsala.

**Lundin, L. 1994.** Impacts of forest drainage on flow regime. Stud. For. Suec. 192. 22 pp.

**Lundin, L. 1994.** Något om skogsmarkens vatten. Markdagen 1994 - Forskningsnytt om mark. Skogsfakta 19:39-46. Sveriges lantbruksuniversitet, Uppsala.

**Lundmark, J.-E. 1994.** Marklärans roll i skogsbruket. Markdagen 1994 - Forskningsnytt om mark. Skogsfakta 19:67-70. Sveriges lantbruksuniversitet, Uppsala.

**Melkerud, P.-A. 1994.** Mineraljorden som växtnäringskälla. Markdagen 1994 - Forskningsnytt om mark. Skogsfakta 19:9-19. Sveriges lantbruksuniversitet, Uppsala.

**Nilsson, T., Lundin, L. & Olsson, M. 1994.** Beskogning av utbrutna torvtäkter - problem och lösningar. Skogsfakta nr 8. 4 pp.

**Nõmmik, H., Pluth D. J., Larsson, K. & Mahendrappa, M. K. 1994.** Isotopic fractionation accompanying fertilizer nitrogen transformations in soil and trees of a Scots pine ecosystem. Plant and Soil 158(2):169-182.

**Olsson, M.T. & Alriksson, A. 1994.** Soil changes in different age classes of Norway spruce (*Picea abies* (L.) Karst.) on afforested farmland. Plant and Soil 168-169: 103-110.

**Olsson, M., Johansson, M.-B. & Lundin, L. 1994.** Skogsmarkens bördighet. Ur Markens bördighet. Vad är bördighet och hur påverkas den. SNV rapport 4337.

**Olsson, M. & Melkerud, P.-A. 1994.** Impact of organic matter on weathering rates under field conditions. Poster presentation and extended abstract at the 15<sup>th</sup> World Congress of Soil Science, 10-16 July 1994. Acapulco, Mexico.

Persson, J., Otabbong, E., Olsson, M., **Johansson, M.-B., & Lundin, L. 1994.** Markens bördighet. Vad är bördighet och hur påverkas den?. Soil fertility and regulating factors. Naturvårdsverket Rapport 4337. (In Swedish with English summaries). 150 pp.

**Rosén, K. 1994.** Some aspects on the concept of critical loads. A moderators conclusion. Proceedings: Critical load and critical limit values. Finnish-Swedish environmental conference. October 27-28, 1994. Vaasa, Finland.

Sverdrup, H., & **Rosén, K. 1994.** Critical loads of acidity and nitrogen for Swedish forest ecosystems, and the relationship to soil weathering. Proceedings: Critical load and critical limit values. Finnish-Swedish environmental conference. October 27-28, 1994. Vaasa, Finland.

**Tegnhammar, L. 1994.** Bonitet och tillväxt. Växer skogen bättre nu än förr? Markdagen 1994 - Forskningsnytt om mark. Skogsfakta 19:55-60. Sveriges lantbruksuniversitet, Uppsala.

**Wiklander, G. 1994.** Kväve i mark och vatten. 1994. Markdagen 1994 - Forskningsnytt om mark. Skogsfakta 19:47-54. Sveriges lantbruksuniversitet, Uppsala.

## 1995

**Alriksson, A. 1995.** Tree species experiment on afforested farmland: Experimental design, initial soil conditions and tree growth. In Mead D J and Cornforth I S 1995. Proceedings of the trees and soil workshop, Lincoln University 28 February-2 March 1994. Agronomy Society New Zealand Special Publication No 10, Lincoln University Press Canterbury.

**Alriksson, A. & Olsson, M. T. 1995.** Soil changes in different age classes of Norway spruce (*Picea abies* (L.) Karst) on afforested farmland. *Plant and Soil* 168-169:103-110.

Barklund, P., Ericsson, A., Gemmel, P., Johansson, U., **Olsson, M.**, Walheim, M. & Åhman, G. **1995.** Bark och vedskador hos granar med kådflöde "Kådflödessjukan hos gran". SLU Info/Skog, Rapport 15. SLU, Alnarp.

**Berg, B.**, Calvo de Anta, R., Escudero, A., Gärdenäs, A., **Johansson, M.-B.**, Laskowski, R., Madeira, M., Mälkönen, C., McClaugherty, C., Meentemeyer, V. & Virzo De Santo, A. **1995.** The chemical composition of newly shed needle litter of Scots pine and some other species in a climatic transect. X. Long-term decomposition in a Scots pine forest. *Canadian Journal of Botany* 73(9):1423-1435.

**Berg, B.** & Cortina, J. **1995.** Nutrient dynamics in some decomposing leaf and needle litter types in a *Pinus sylvestris* forest. *Scandinavian Journal of Forest Research* 10(1):1-11.

**Berg, B.**, McClaugherty, C., Virzo De Santo, A., **Johansson, M.-B.**, & Ekbohm, G. **1995.** Decomposition of litter and soil organic matter - can we distinguish a mechanism for soil organic matter buildup? *Scandinavian Journal of Forest Research* 10(2):108-119.

Cortina, J., Romanya, J., Vallejo, V.R. & **Berg, B. 1995.** Nutrient relationships in decomposing litter as related to soil nutrient availability. p. 16 in "Driven by Nature, Plant litter quality and decomposition" September 17-20 1995, Wye College, University of London.

Eriksson, E. & **Karlton, E. 1995.** Modelling the transport of acidity in soil profiles with FRONT - a dynamic transport model. *Water, Air and Soil Pollution* 85:1789-1794.

Hjelm, O., **Johansson, M.-B.** & Öberg-Asplund, G. **1995.** Organically bound halogens in a coniferous forest soil. Distribution pattern and evidence of in situ production. *Chemosphere* 30(12):2353-2364.

**Holmgren, P. 1995.** Geographic information for forestry planning. PhD Thesis, SLU. Rapporter i skogsekologi och skoglig marklära 68.

**Holmgren, P.**, Maskha, E. J. & Sjöholm, H. **1995.** Not all African land is being degraded: A recent survey of trees on farms in Kenya reveals rapidly increasing forest resources. *Ambio* 23(7): 390-395.

**Holmgren, P.** & Thuresson, T. **1995.** Avdelningsfritt skogsbruk ger gränslös flexibilitet. *Fakta Skog* Nr. 14.

**Johansson, M.-B. 1995.** The chemical composition of needle and leaf litter from Scots pine, Norway spruce and white birch in Scandinavian forests. *Forestry* 68(1): 49-62.

**Johansson, M.-B., Berg, B.** & Meentemeyer, V. **1995.** Litter mass-loss rates in late stages of decomposition in a climatic transect of pine forests. Long-term decomposition in a Scots pine forest. IX. Canadian Journal of Botany 73(10):1509-1521.

**Johansson, M.-B., Berg, B.** & Meentemeyer, V. **1995.** Substrate quality, climate and litter decomposition in early and late stages of decomposition - a comparison in a transect. p 77 in "Driven by Nature, Plant litter quality and decomposition" September 17-20, 1995, Wye College, University of London.

**Johansson, M.-B., Berg, B.**, Meentemeyer, V. & McClaugherty, C. **1995.** Substrate quality, climate and litter decomposition in early and late stages of decomposition - a comparison in a transect. p 77 in "Driven by Nature, Plant litter quality and decomposition" September 17-20, 1995, University of London.

**Johansson, M.-B. & Nilsson, Å.** **1995.** Regional miljöövervakning - var ska skogsmarken undersökas? Fakta Skog 17, SLU.

**Karlton, E. (ed.).** **1995.** Acidification of forest soils on glacial till in Sweden - soil chemical status and acidification processes in relation to environmental conditions. Report 4427. Swedish Environmental protection Agency. Solna. Sweden. 76 pp.

Kauppi, P. & Eriksson H. M. **1995.** The implication of climate change on forest research. In: Nutrient uptake and cycling in forest ecosystems. Eds. Nilsson L. O., Hüttl R. F., Johansson U. T. and Mathy P. Proceedings of a symposium held in Halmstad 7-10 June 1993. European Commission, Ecosystem research report 21. ISBN 92-826-9416-X

Knutsson, K., Bergström, S., Danielsson, L-G., Jacks, G., Lundin, L., Maxe, L., Sandén, H., Sverdrup, H., & Warfvinge, P. **1995.** Acidification of groundwater in forested till areas. In: Effects of acid deposition and tropospheric ozone on forest ecosystems in Sweden. Ecological bulletins 44. Eds. Staaf, H. & Tyler, G. Copenhagen p. 271-300.

Laskowski, R., Berg, B., Johansson, M.-B. & McClaugherty, C. **1995.** Release of some nutrients in decomposing forest needle and leaf litter. p 24 in "Driven by Nature, Plant litter quality and decomposition" September 17-20 1995, Wye College, University of London.

Laskowski, R., Berg, B., Johansson, M.-B. & McClaugherty, C. **1995.** Release pattern for potassium from decomposing forest needle and leaf litter. Long-term decomposition in a Scots pine forest IX. Canadian Journal of Botany 73(12):2019-2027.

**Lode, E. & Lundin, L.** **1995.** Vattenspegel efter torvtäkt - en möjlighet av många. Skog & Forskning 4:66-71.

**Lundin, L.** **1995.** Effects of peat-winning on leaching of organic acids, carbon and nitrogen. Proc. of the Conf. "Peat Industry and Environment", Pärnu, Estonia 12-15 Sept. 1995. Ministry of Environment, Tallin. pp. 53-55.

**Lundin, L.** **1995.** Skogslandets vatten. NFRs årsbok 1995 "Det evigt vandrande vattnet" pp.71-82. Uppsala.

**Lundin, L.** **1995.** Soil water chemistry dependence on water pathways and turnover. Water, Air and Soil Pollution 85(3):1695-1700.

**Lundin, L.** **1995.** Vattnet i skogsmarken - Skogsbrukets effekter på hydrologi och vattenkemi. Skog & Forskning 4:8-16.

Maxe, L. **1995.** Effects of acidification on groundwater in Sweden - Hydrological and hydrochemical processes. Swedish Environmental Protection Agency, Stockholm. Report 4388. 166 pp. **Lundin, L.** p. 59-130, Knutsson, G. & **Lundin, L.** p. 1-4., Jacks, G., Knutsson, G., Lundin, L. & Maxe, L. p. 141-160.

McTiernan, K.B., Couteaux, M.M., **Berg, B.**, Bottner, P., Calvo de Anta, R., Gallardo, A., Herbauts, J., Ineson, P., Pearce, T., Piussi, P., Remacle, J., Tremolieres, M., Verhoef, H. & Virzo De Santo, A. **1995.** Change in quality of decomposing litter in response to climate. p 80 in "Driven by Nature, Plant litter quality and decomposition" September 17-20 1995, Wye College, University of London.

**Nilsson, T., Krantz-Eliasson, B. & Bjurman, M. 1995.** Measurement of pH in soil samples from a cutover peatland in Sweden: the effect of electrolyte and solution/soil ratio. Communications in Soil Science and Plant Analysis 26(3-4):361-374.

**Nilsson, T. & Olsson, M. 1995.** Markförsurning och skogsskador i Stockholms län. En sammanställning och utvärdering av olika undersökningar. Länsstyrelsen i Stockholms län. Rapport 1995:12.74s.

**Nordin, A. 1995.** Askmedel och kalk - tidiga effekter på elektrisk konduktivitet och pH i en skogsjord och deras korrelationer med skaktest. Rapporter i skogsekologi och skoglig marklära 69. Institutionen för skoglig marklära, Sveriges lantbruksuniversitet, Uppsala.

**Olsson, M., 1995.** Markförändringar - vittring - näringstillgång. Ur Kritiska faktorer för skogsträdens tillväxt och vitalitet. Konferens den 29 mars 1995 anordnad av Stiftelsen Svensk Växtnäringforskning. Kungl. Skogs- och Lantbruksakademien Tidskrift 11:39-46.

Pluth, D., **Nömmik, H., Wiklander, G., Larsson, K.** & Eriksson, A. **1995.** Carbon and nitrogen mineralization of harvesting residues of *Pinus sylvestris* L. during aerobic laboratory incubation. Scandinavian Journal of Forest Research 10 (2): 97-107.

Rodhe, H., Hedlund, T., **Eriksson, H.**, Jonsson, P., Klemedtsson, L. & Nilsson, M. **1995.** Sveriges växthusgasbudget - Rapport från ett seminarium 1994-11-22. Rapport från klimatdelegationen 1/95.

Sverdrup, H., Warfvinge, P. & **Rosén, K. 1995.** Critical loads of acidity and nitrogen, based on multiple criteria for different Swedish ecosystems. "Acid Reign" 5<sup>th</sup> international conference on acidic deposition, 26-30 June 1995. Göteborg, Sweden.

Sverdrup, H., Warfvinge, P. & **Rosén, K. 1995.** Critical loads of acidity and nitrogen, based on multiple criteria for different Swedish ecosystems. Water Air and Soil Pollution 85(4): 2375-2380.

## 1996

**Alriksson, A. & Olsson, M.T. 1996.** Soil carbon storage in a gradient of Swedish forest soils. In: **M. Olsson** (Ed.). Soil development in the Nordic countries - Identification and quantification of factors and processes, and prerequisites for biological primary production. Extended abstracts from a Nordic workshop 6-9 September 1994, Asa, Sweden. p. 1. Reports in Forest Ecology and Forest Soils, Swedish University of Agricultural Sciences 71.

**Berg, B. 1996.** Climate change - does it influence the decomposition processes of litter and soil organic matter? In: A. Virzo De Santo (Ed). Ecologia. Atti VII Congresso

Nazionale della Societa Italiana Di Ecologia. Napoli 11-14 Settembre 1996. S.It.E. - Atti. pp. 19-22.

**Berg, B., Ekbohm, G., Johansson, M.-B., McClaugherty, C., Rutigliano, F. & Virzo De Santo, A. 1996.** Maximum decomposition limits of forest litter types: a synthesis. Canadian Journal of Botany 74(5):659-672.

**Berg, B., & Johansson, M.-B. 1996.** Do some forest ecosystems have a maximum limit for litter decomposition? A synthesis of data. In: **M. Olsson** (Ed.). Soil development in the Nordic countries - Identification and quantification of factors and processes, and prerequisites for biological primary production. Extended abstracts from a Nordic workshop 6-9 September 1994, Asa, Sweden. p. 2. Reports in Forest Ecology and Forest Soils, Swedish University of Agricultural Sciences 71.

**Berg, B., Johansson, M.-B. & Lundmark, J.-E. 1996.** Markens organiska material i skog - har gödsling och trädslagsval en inverkan? In: B. Berg (ed.) Markdagen 1996. Rapporter i skogsekologi och skoglig marklära. Rapport 72:33-44.

Breymeyer, A., **Berg, B., Gower, S. & Johnson, D. 1996.** Chapter 3. Carbon budgets - temperate coniferous forests. In: A.I. Breymeyer, D.O. Hall, J. Melillo and G. Ågren (Eds). "Global change: Effects on Coniferous Forests and Grasslands. "SCOPE symposium held in Uppsala, August 13 -19, 1992. pp 41-67.

**Eriksson, C. P. & Holmgren, P. 1996.** Estimating stone and boulder content in forest soils - evaluating the potential of surface penetration methods. Catena 28:121-134.

**Eriksson, H. M. 1996.** Askåterföring - Näringskologiska effekter. K. Skogs- och Lantbr.akad. Tidskr. 135 (13):53-60.

**Eriksson, H. M. 1996.** Effects of tree species and nutrient application on distribution and budgets of base cations in Swedish forest ecosystems. Acta Universitatis Agriculturae Sueciae, Silvestria 2.

**Eriksson, H. M. 1996.** Skogsbruket och växthusgaserna. I "Skogen i kretsloppen - nya steg mot en hållbar utveckling", Rapport från Skogskonferensen, Uppsala 5-6 dec 1995, Fakta Skog Konferens Nr 2:48-54, SLU Kontakt, Uppsala.

**Eriksson, H. M., Berdén, M., Rosén, K. & Nilsson, S.I. 1996.** Nutrient distribution in a Norway spruce stand after long-term application of ammonium nitrate and superphosphate. Water, Air and Soil Pollution 92 (3-4):451-467.

**Eriksson, H. M., Karjalainen T., Kauppi P. & Österberg K. 1996.** A proposal for agreements on mitigation of climate change - The role of the forest sector. (Rapport till svenska och finska miljödepartementen).

**Hellgren, M. 1996.** Markinfo II – ett lyft för marken. In: B. Berg (ed.) Markdagen 1996. Rapporter i skogsekologi och skoglig marklära. Rapport 72:103-110.

**Karlton, E. 1996.** Svanlets roll i markförsurningen. K. Skogs-o. Lantbr. akad. Tidskr. 135:23-28.

Ledin, S. & **Alriksson, A. 1996.** Choice of site and establishing short rotation forests. Sweden. In: Ledin, S. & Willebrand, E. (eds.). Handbook on how to grow short rotation forests, Uppsala, SLU, p. 2.6.1-2.6.10.

**Lundin, L. 1996.** Effects of peat-winning on the water environment at a sedge fen

ecosystem. Proc. from the 10th Int. Peat Congr., 27 May-2 June 1996, Bremen, Germany. Vol. 2, 426-432.

**Melkerud, P.-A. 1996.** Clay mineralogy of Swedish podzol profiles. In: **M. Olsson** (Ed.). Soil development in the Nordic countries - Identification and quantification of factors and processes, and prerequisites for biological primary production. Extended abstracts from a Nordic workshop 6-9 September 1994, Asa, Sweden. p. 19-23. Reports in Forest Ecology and Forest Soils, Swedish University of Agricultural Sciences 71.

**Melkerud, P.-A. 1996.** Geochemistry of Swedish forest soils. GFF 118:A112-A113. In: B. Sundquist (Ed.) Short Papers and Abstracts for the Jubilee Meeting "Current Problems, Ideas, and Results in Geology" Stockholm 16<sup>th</sup>-18<sup>th</sup> October 1996 at the celebration of the 125<sup>th</sup> anniversary of The Geological Society of Sweden.

**Nilsson, T. & Lundin, L. 1996.** Effects of drainage and wood ash fertilization on water chemistry at a cutover peatland. Hydrobiologia 335(1):3-18

Olsson, B. A., Staaf, H., Lundkvist, H., Bengtsson, J. & **Rosen, K. 1996.** Carbon and nitrogen in coniferous forest soils after clear-felling and harvests of different intensity. Forest Ecology and Management 82(1-3): 19-32.

**Olsson, M. 1996.** Långsiktiga näringssbalanser vid uttag av skogsbränsle. Ur Ekologiska effekter av skogsbränsleuttag och askåterföring. Konferens maj 1996. Skogs- och Lantbruksakademien Tidskrift 135(13):37-44. Stockholm.

**Olsson, M. 1996.** Mineralnäringens roll i kretsloppet - humuslagrets betydelse för vittring. Ur Skogen i kretsloppet. Konferensdokumentation Uppsala 5-6 december 1995. SLU, Uppsala

**Olsson, M. (ed.) 1996.** Soil development in the Nordic countries - Identification and quantification of factors and processes, and prerequisites for biological primary production. Extended abstracts from a Nordic workshop 6-9 September 1994, Asa, Sweden. 33 pp.

**Rosén, K., Aronson, J.-A., & Eriksson, H. M. 1996.** Effects of clear-cutting on streamwater quality in forest catchments in central Sweden. For. Ecol. Manage. 83(3):237-244.

Rutigliano, F. A., De Santo, A. V., **Berg, B.**, Alfani, A. & Fioretto, A. **1996.** Lignin decomposition in decaying leaves of *Fagus sylvatica* L. and needles of *Abies alba* Mill. Soil Biology and Biochemistry 28(1):101-106

**Wiklander, G. 1996.** Utsläpp från olika källor. In: Eriksson, T. (ed.) [Nitrogen and phosphorus in soil and water]. Kväve och fosfor i mark och vatten – en ödesfråga inför 2000-talet. Seminariet den 22-23 mars 1995 på Marholmen, Norrtälje. Kungl. Skogs- och Lantbruksakademien Tidskrift 135(3):75-84

Öberg, G., Nordlund, E. & **Berg, B. 1996.** In situ formation of organically bound halogens during decomposition of Norway spruce needles: effects of fertilization. Canadian Journal of Forest Research 26(6):1040-1048.

## 1997

**Berg, B., Johansson, M.-B. & Lundmark, J.-E. 1997.** Site descriptions for forest sites - a compilation. Reports in Forest Ecology and Forest Soils, Swedish University of Agricultural Sciences. Report 73, 43 pp.

**Berg, B., Laskowski, R. 1997.** Nutrient concentration changes in decomposing needle litter in lodgepole pine (*Pinus contorta*) and Scots pine (*Pinus silvestris*) monocultural systems - a comparison. Scandinavian Journal of Forest Research 12:113-121.

**Berg, B. & Matzner, E. 1997.** Effect of N deposition on decomposition of plant litter and soil organic matter in forest systems. Environmental Reviews 5:1-25.

**Berg, B., McClaugherty, C. & Johansson, M.-B. 1997.** Chemical changes in decomposing litter can be systemized with respect to the initial chemical composition of the litter. Reports in Forest Ecology and Forest Soils, Swedish University of Agricultural Sciences, Uppsala 74. 85 pp.

**Eriksson, C. P. 1997.** On the estimation of forest soil fertility by means of soil-site studies. Rapporter i skogsekologi och skoglig marklära 75. Licentiatavhandling. Swedish University of Agricultural Sciences, Uppsala.

Fierro, A.R. Rutigliano, F.A., **Berg, B.** & Virzo De Santo, A. **1997.** Litter chemical composition, decomposition pattern and element dynamics in three pine species? In: A. Anelli, I. Ferrari, G. Rossetti and M. Vezzosi (Eds.) Ecologica. Atti dell@ VIII Congresso Nazionale Della Societa Italiana Di Ecologia. pp 71- 74. Parma 10-12 September 1997.

**Holmgren, P. & Thuresson, T. 1997.** Applying objectively estimated and spatially continuous forest parameters in tactical planning to obtain dynamic treatment units. For. Sci. 43(3): 317-236.

**Holmgren, P., Thuresson, T. & Holm, S. 1997.** Estimating forest characteristics in scanned aerial photographs with respect to requirements for economic forest management planning. Scandinavian Journal of Forest Research 12(2):189-199.

**Johansson, M.-B. & Nilsson, Å. 1997.** Utvärdering av befintlig regional miljöövervakningsverksamhet av skog, skogsmark och biologisk mångfald i AB-, C-, D-, T- och U-län. Meddelanden från Länsstyrelsen nr 14. Länsstyrelsen i Stockholms län.

**Johansson, M.-B. & Nilsson, Å. 1997.** Sammanställning av befintlig regional miljöövervakning av skog, skogsmark och biologisk mångfald i AB-, C-, D-, T- och U-län. Meddelanden från Länsstyrelsen nr 18. Länsstyrelsen i Stockholms län.

Jongman, A. G., van Breemen, N., Lundström, U., van Hess, P. A. W., Finlay, R. D., Srinivasan, M., Unestam, T., Giesler, R., **Melkerud, P.-A. & Olsson, M. 1997.** Rock-eating fungi. Nature 389:682-683.

**Karlton, E. 1997.** Modelling  $\text{SO}_4^{(2-)}$  surface complexation on variable charge minerals: I.  $\text{H}^+$  and  $\text{SO}_4^{(2-)}$  exchange under different solution conditions. European Journal of Soil Science 48(3):483-491.

Kresten, P. & **Melkerud, P.-A. 1997.** Röntgendiffraktionsanalys av skifferprover för identifikation av arkeologiska skifferfynd. Geoarkeologiskt Laboratorium. Analysrapport nr 3-1997. Riksantikvarieämbetet, Avd för arkeologiska undersökningar, Uppsala.

Kresten, P. & **Melkerud, P.-A.** 1997. Provenance of Swedish slate artefacts. Geoarkeologiskt Laboratorium. Analysrapport nr 29-1997. Riksantikvarieämbetet, Avd för arkeologiska undersökningar, Uppsala.

Kresten, P. & **Melkerud, P.-A.** 1997. Analys av "lertätningar" från Asine, Peloponnesos, Grekland. Geoarkeologiskt Laboratorium. Analysrapport nr 31-1997. Riksantikvarieämbetet, Avd för arkeologiska undersökningar, Uppsala.

Kresten, P. & **Melkerud, P.-A.** 1997. Analyses of "clay putty" from Asine, Peloponnese, Greece. Geoarkeologiskt Laboratorium. Analytical Report nr 31-1997a. Riksantikvarieämbetet, Avd för arkeologiska undersökningar, Uppsala.

**Lode, E. & Lundin, L.** 1997. Report from the 10<sup>th</sup> International Peat Congress 27 May - 2 June 1996, Bremen, Germany "Peatland use - Present, Past an Future". Vannet i Norden 1/97:18-33.

**Lundin, L.** 1997. Effects of peat-winning on the water environment at a sedge fen ecosystem. Projektrapporter - NUTEK. Torv no. 1. 11 p.

**Lundmark, A. & Johansson, M.-B.** 1997. Influence of clear-cutting and mechanical site preparation on decomposition and nutrient dynamics of Norway spruce (*Picea abies* (L.) Karst.) Needle litter and slash needles. Forest Ecology and Management 96:101-110.

Messing, I., **Alriksson, A.** & Johansson, W. 1997. Soil physical properties of afforested and arable land. Soil Use and Management 13(4):209-217

**Nilsson, T.** 1997. Skogsskadeutvecklingen i Stockholms län under perioden 1985 - 1995. Länsstyrelsen i Stockholms län, Rapport 1997:13. 32 s

**Nilsson, T. & Eriksson, H.M.** 1997. Vedaska och kalk - effekter på kvävemineralisering och nitrifikation i en skogsjord. NUTEK R 1997:75. 81 s

**Olsson, M.** 1997. Kol i marken. Konsekvenser av markanvändning i skogs- och jordbruk. Ur (eds. M. Lilliesköld & J. Nilsson) Kol i marken. Konsekvenser av markanvändning i skogs- och jordbruk. Naturvårdsverket, Rapport 4782.

## 1998

**Alriksson, A.** 1998. Afforestation of farmland: Soil changes and the uptake of heavy metals and nutrients by trees. Acta Universitatis Agriculturae Sueciae. Silvestria 57.

**Alriksson, A.** 1998. Kan träd rena mark från tungmetaller? In: **M. Olsson** (ed.) Markdagen 1998. Rapporter i skogsekologi och skoglig marklära. Rapport 79:51-59.

**Alriksson A. & Eriksson H. M.** 1998. Variations in mineral nutrient and C distribution in the soil and vegetation compartments of five temperate tree species in NE Sweden. Forest Ecology and Management 108:261-273

**Berg, B.** 1998. Litter chemical composition and humus buildup- is there a relationship? VII Congress of Ecology, Florence July 25-29th, 1998. Proceedings (Ed. by Harina A., Kennedy, J. and Bossu, V.) p. 42.

**Berg, B. 1998.** The concept of "litter quality"; a shortterm vs. A long-term perspective. GCTE-COST Workshop on Litter Quality and Decomposition under Elevated Atmospheric CO<sub>2</sub>. Capri Sept 24-27, 1998. Meeting abstracts.

**Berg, B. 1998.** Organic-matter quality and C/N ratio as controlling factors of RSOM turnover. In: Refactory soil organic matter (RSOM): Structure and Stability. Beyreuth, 26-28 April 1998. Mitteilungen der Deutschen Bodenkundlichen Gesellschaft. Band 87, pp. 79-91.

**Berg, B. & Johansson, M.-B. 1998.** Maximum limits for plant litter decomposition. Data from forest systems. Reports in Forest Ecology and Forest Soils, Swedish University of Agricultural Sciences. Report 77, 157 pp.

**Berg, B. & Johansson, M-B. 1998.** Intensivt biomassauttag - hur går det med skogsmarkens kolbalans? [Intensive biomass harvesting in forests - what about the carbon balance?] Rapport från Vattenfall AB No 1998/2 43 pp. (In Swedish, English summary).

**Berg, B., Johansson, M.-B., Meentemeyer, V. & Kratz, W. 1998.** Decomposition of tree root litter in a climatic transect of coniferous forests in norther Europe: a synthesis. Scandinavian Journal of Forest Research 13(4):402-412.

Breland, T. A., Persson, T., Kätterer, T., Andrén, O., Huhta, V., **Lomander, A. & Seyferth, U. 1998.** Experimental methods for the carbon and nitrogen turnover studies. Tema Nord (in press).

Cotrufo, F., **Berg, B.** & Kratz, W. **1998.** Increased atmospheric CO<sub>2</sub> concentrations and litter quality. Environmental Reviews 6:1-12.

Couteaux, M.-M., Bottner, P., Anderson, J.M., **Berg, B.**, Billes, G., Bolger, T., Casals, P., Romanya, J., Rovira, P., Sanger, L., Vallejo, R.V., and Whelan, M.J. **1998.** Soil organic matter modification in response to climatic change in a North-South (Lat 60° - 40° N) European climatic transect of coniferous forest soils evidenced by direct measurements of decomposition of 13C and 15N labelled standard plant material in transplanted soils. (VAMOS programme supported by EU DG XII). In Earth's Changing Land. GCTE-LUCC Open Science Conference on Global Change, Barcelona 98:176.

Couteaux, M.- M., McTiernan,K., **Berg, B.**, Szuberla, D. and Dardennes, P. **1998.** Chemical composition and carbon mineralisation potential of Scots pine needles at different stages of decomposition Soil Biology and Biochemistry 30:583-595.

Couteaux, M.- M., Thiery, J.M., Bottner, P., Anderson, J.M., **Berg, B.**, Bolgner, T., and Vallejo, R.V. **1998.** Modelling the effect of climate change on the decomposition if 13C and 15N-labelled plant material in a N-S European transect of coniferous forest soils. Soil Science Society of America meeting.

Danielsson, B.-O. & **Nilsson, T. 1998.** Återföring av självhärdad aska. Vattenfall Utveckling AB, projekt Bioenergi, rapport 1997/7. 31 sid.

**Eriksson, H. M. 1998.** Short-term effects of granulated wood ash on forest soil chemistry in SW and NE Sweden. Scandinavian Journal of Forest Research Suppl. 2:43-55.

**Eriksson H. & Alriksson A. 1998.** Om hur trädslaget påverkar tillståndet i våra marker - En utvärdering av Ståndortskarteringsmaterialet (On how our tree species affect the soil status - An evaluation of data from the Swedish Soil and Vegetation Inventory). In:

Markdagen 1998, Ed. **Olsson M.**, Reports in Forest ecology and Forest Soils, No 79. ISSN 0348-3398.

**Eriksson, H.**, Hansson, P.-A., Hillring, B., Kriström, B., Mattsson, J. E. & Verwijst, T. **1998**. Bioenergi - ett forskningsområde vid skogsvetenskapliga fakulteten. Skogsvetenskapliga fakulteten, Sveriges lantbruksuniversitet, Uppsala.

**Eriksson H. M.**, Lundkvist H. (corr. author), **Nilsson T.** & Arvidsson H. **1998**. Ecological effects of recycling of hardened wood ash. Abstract and poster at The Ninth North American Forest Soils Conference, Granlibakken, California, August 1998.

**Eriksson, H. M., Nilsson, T.** & Nordin, A. **1998**. Early effects of lime and hardened and non-hardened ashes on pH and electrical conductivity of the forest floor, and relations to some ash and lime qualities. Scandinavian Journal of Forest Research Suppl. 2:56-66.

**Eriksson, H.**, Vinterbäck, J., Parikka, M. & Hektor, B. **1998**. Whole-tree harvesting - effects on the N budget of forest soils in Sweden. In: Madlener R & Pingoud K (eds), Proceedings of the IEA Bioenergy Task 25 workshop "Between COP3 and COP4: The role of bioenergy in achieving the targets stipulated in the Kyoto protocol" 8-11 September 1998. ISBN 3-9500847-1-1.

Forsius, M., Guardans, R., Jenkins, A., **Lundin, L.** & Nielsen, K.E. Eds. **1998**. Integrated Monitoring: Environmental Assessment through Model and Empirical Analysis. Final results from the EU/LIFE- project "Development of Assessment and Monitoring Techniques at Integrated Monitoring Sites in Europe". Project LIFE/FIN/A11/EPT/387. The Finnish Environment 218. Helsinki. 172 pp.

Gaitnieks, T. & **Berg, B.** **1998**. A microbial index for estimation of the peaty forest soil fertility. Baltic Forestry. 1998, 4(2): 14-20.

Gillespie, A., Rawlins, W. K., Mills, W. L. Junior, Coppin, P. R., **Olsson, M., Rosén, K.**, Fries, C., Bäckström, P.-O., Agestam, E. & Magnusson, T. **1998**. Teaching across cultures. A model for international education in the national resources. Journal of Forestry, 96(2):20-24.

Gunnarsson, F., Holm, S., **Holmgren, P.** & Thuresson, T. **1998**. On the potential of kriging for forest management planning. Scandinavian Journal of Forest Research 13(2):237-245.

Gustafsson, J. P., **Karlton, E.** & Bhattacharya, P. **1998**. Allophane and imogolite in Swedish soils. Research Report TRITA-AMI 3046. Department of Civil and Environmental Engineering. Royal Institute of Technology (KTH).

Göransson, E., **Karlton, E., Stendahl, J.** & Överby, H. **1998**. Markens försurningskänslighet i Norrbottens län. Länsstyrelsen i Norrbottens län Rapportserie 4/97, Luleå. 40 pp.

**Johansson, M.-B.** **1998**. The higher agricultural education in Sweden in the 21st century - Focus on natural resources. In: Society's expectations of European agriculture: The catalytic role of agricultural education. Timiryazev Agricultural Academy, Moscow, Russia.

**Johansson, M.-B. & Nilsson, Å.** **1998**. Hur kan den regionala miljöövervakningen av skogsmark optimeras? In: **M. Olsson** (ed.) Markdagen 1998. Rapporter i skogsekologi och skoglig marklära. Rapport 79:113-122.

**Johansson, M.-B. & Nilsson, Å. 1998.** Karaktärisering av skogsprovtyor för regional miljöövervakning i AB, C, D, T och U län. Länsstyrelsen i Stockholm län, Serie U, Nr 29, November 1998.

**Karlton, Erik. 1998.** Baskatjoner och aciditet i svensk skogsmark – tillstånd och förändringar. Skogsstyrelsen Rapport 1998:5. 18 pp.

**Karlton, E. 1998.** Modelling SO<sub>4</sub>(2-) surface complexation on variable charge minerals. II. Competition between SO<sub>4</sub>(2-), oxalate and fulvate. European Journal of Soil Science 49(1):113-120.

Kresten, P. & **Melkerud, P.-A. 1998.** Ett skifferbryne från S:t Olofs hamn, Idenors sn., Hälsingland. Geoarkeologiskt Laboratorium. Analysrapport nr 2-1998. Riksantikvarieämbetet, Avd för arkeologiska undersökningar, Uppsala.

Kätterer, T., Reichstein, M., Andren, O. & **Lomander, A. 1998.** Temperature dependence of organic matter decomposition: a critical review using literature data analyzed with different models. Biology and Fertility of Soils 27(3):258-262.

**Lode, E., Ilomets, M. & Lundin, L. 1998.** Three Rewetted Peat Cuttings. Proceedings of the International Peat Symposium, The Spirits of Peatlands Sopo, 30 Years of the International Peat Society, R. (Ed.) Jyväskylä, pp. 170-172.

**Lomander, A. & Johansson, M-B. 1998.** Tungmetaldynamik i barrförna under nedbrytning - en jämförelse med aska.[Heavy metal dynamics in needle litter during decomposition – a comparison with wood ash]. Vattenfalls rapportserie No UB 1998/9 46 s. (In Swedish with English Summary).

**Lomander, A., Kätterer, T. & Andrén, O. 1998.** Carbon dioxide evolution from top- and subsoil as affected by moisture and constant and fluctuating temperature. Soil Biology & Biochemistry 30:2017-2022.

**Lomander, A., Kätterer, T. & Andrén, O. 1998.** Modelling the effects of temperature and moisture on CO<sub>2</sub> evolution from top- and subsoil using a multi-compartment approach. Soil Biology & Biochemistry 30:2023-2030

**Lundin, L. 1998.** Hydrochemical retention in mirelands. Hydrology in a changing Environment. Proceedings of the British Hydrological Society International Conference, Exeter July 1998. Wheater H. & Kirby, C. eds. Vol. I, 445-454. Publ. Wiley and Son.

**Lundin, L. 1998.** Hydrochemistry of natural, cut-over and rewetted peatland sites. Peatland Restoration and Reclamation. Proceedings of the 1998 International Peat Symposium. Malterer, T., Johnson, K. & Stewart, J. eds. Duluth, Minnesota, USA. pp 139-143.

**Lundin, L. 1998.** Effects of peatland forestry on hydrology and leaching. NHP Report No. 44, Vol. I, 226-233.

**Lundin, L. 1998.** Alternative Peatland Forestry; Impacts on hydrology and surface water chemistry. Proceedings of the International Peat Symposium, The Spirits of Peatlands Sopo, 30 Years of the International Peat Society, R. (Ed.) Jyväskylä, pp. 76-78.

**Lundin, L. 1998.** Scenario för skogen, kväveöverskott och baskatjonbrist. In: G. Persson (ed.) Sjöar och vattendrag, s. 74-81.

**Lundin, L. & Wilander, A. 1998.** Om tillståndet i våra sjöar? In: M. Olsson (ed.)

Markdagen 1998. Rapporter i skogsekologi och skoglig marklära. Rapport 79:101-112.

**Melkerud, P.-A. 1998.** Hur vittrar marken? In: M. Olsson (ed.) Markdagen 1998. Rapporter i skogsekologi och skoglig marklära. Rapport 79:29-50.

**Nilsson, T. & Eriksson, H. M. 1998.** Vedaska och kalk - Effekter på upptag av näringssämnen och tungmetaller i blåbär. Energimyndigheten ER 10:1998. ISSN 1403-1892 (In Swedish) 50 sid.

**Odell, G. & Ståhl, G. 1998.** Vegetationsförändringar i skogsmark från 1980-talet till 1990-talet. Resultat från den landsomfattande Ståndortskarteringen. Svensk Botanisk Tidskrift 92: 227-232.

**Odell, G. & Ståhl, G. 1998.** Vegetationsförändringar i svensk skogsmark mellan 1980- och 90-talet. - En studie grundad på ståndortskarteringen. Arbetsrapport 37. Institutionen för skoglig resurshushållning och geomatik, Institutionen för skoglig marklära, SLU, Umeå, 44pp.

Persson, T., Andrén O., Breland, T. A., Henriksen, T. M., Kätterer, T., **Lomander, A.** & Seyferth, U. **1998.** Carbon and nitrogen turnover in relation to substrate quality and moisture. Tema Nord (in press).

Raulund-Rasmussen, K., Borggaard, O.K., Hansen, H.C.B. & **Olsson, M. 1998.** Effect of natural organic soil solutes on weathering rates of soil minerals. Eur. J. Soil Sci. 49(3):397-406.

Virzo De Santo, A., Rutigliano, F. A., **Berg, B.**, Fioretto, A. & Fierro, A. R. **1998.** Nitrogen dynamics of decomposing needle litters in three coniferous forests of the Mediterranean area. Fresenius Environmental Bulletin. (7);510-517)

Vinterbäck, J., Parikka, M., Hektor, B. & **Eriksson, H. 1998.** Kväveavlastning genom uttag av trädbränslen, en kvantitativ analys. Vattenfall Rapport 1998/2. ISSN 1100-5130.

Walse, C., **Berg, B.** & Sverdrup, H. **1998.** Review and synthesis of experimental data of organic matter decomposition with respect to the effect of temperature, moisture and acidity. Environmental Reviews 6:25-40

Walse, C., **Berg, B.** & Sverdrup, H. **1998.** Review and synthesis of experimental data of organic matter decomposition with respect to the effect of temperature, moisture and acidity. In: Element cycling in forest soils - modelling the effects of a changing environment. Reports in Ecology and Environmental Engineering No 2.

Wilander, A., Johnson, K.R., Goedkoop, W. & **Lundin, L. 1998.** Riksinventeringen 1995. En synoptisk studie av vattenkemi och bottenfauna i svenska sjöar och vattendrag. Naturvårdsverket, Rapport 4813, 191 s.

## 1999

**Almberg, Å. 1999.** Elementhalter i gran- och tallved - variation med boniteten och längs trädstammen. Rapporter i skogsekologi och skoglig marklära. Rapport 81.

**Alriksson, A. 1999.** Beskogning av åkermark - tungmetaller i trädbiomassa och mark i ett trädslagförsök med snabbväxande lövträd. –Red. Anders Göransson: kadmium i jordbruksmarken. Institutionen för lövträdsodling. Rapport 65. 37 s.

**Alriksson, A., Alriksson, B. and EIMake, M. 1999.** Biomass uptake related depletion of soil cd in a tree-species experiment on farmland in Sweden. In: WW. Wenzel et al (Eds.) 5th International Conference on the Biogeochemistry of Trace Elements. Volume 1. pp 538-539.

Ashagrie, Y., Tekalign, M. & **Olsson, M. 1999.** Changes in some soil chemical properties under scattered Croton Macrostachyus trees in the traditional agroforestry system in northwestern Ethiopia. Ethiopian Journal of Natural Resources 1(2): 215-233.

**Berg, B., Albrektsson, A., Berg, M.P., Cortina, J., Johansson, M-B., Gallardo, A., Madeira, M., Pausas, J., Kratz, W., Vallejo, R. and McClaugherty, C. 1999.** Amounts of litterfall in some pine forests in a European transect, in particular Scots pine. Annals of Forest Science 56(8):625-639.

**Berg, B., Johansson, M-B., Tjarve, I., Gaitnoks, T., Rokjanis, B., Beier, C., Rothe, A., Bolger, T., Göttlein, A. & Gertsberger, P. 1999.** Needle litterfall in a North European Spruce Forest Transect. Reports from Department of Forest Ecology and Forest Soils. Swedish University of Agricultural Sciences. Report 80, 33pp.

**Berg, B., Laskowski, R. & de Santo, A.V. 1999.** Estimated nitrogen concentrations in humus based on initial nitrogen concentrations in foliar litter: a synthesis. XII. Long-term decomposition in a Scots pine forest. Canadian Journal of Botany 77 (12): 1712-1722.

De Jong, B. H. J., Cairns, M. A., Ramirez-Marcial, N., Ochoa-Gaona, S., **Mendoza-Vega, J.,** Haggerty, P. K., González-Espinosa, M. & March-Mifsut, I. **1999.** Land-use change and carbon flux between the 1970s and 1990s in the central highlands of Chiapas, Mexico. Environmental Management 23 (3): 373-385.

**Eriksson H. M. 1999.** Återföring av granulerad vedaska - effekter på avrinningsvatten, markvatten och markkemi. Energimyndigheten ER 21:1999. ISSN 1403-1892 (In Swedish)

**Feitkenhauer, S. 1999.** Kan ståndortsfaktorer indikera känslighet för grantorka? Avhandling för MSC i Naturresursprogrammet. 30 poäng. Handledare: Mats Olsson (skoglig marklära SLU) och Kjell Wahlström, skoglig mykologi och patologi SLU.

Florgård, C., Linnér, H., **Olsson, M. & Wiklander, G. 1999.** Grundvattensänkning och natur på Hallandsås - effekter av tunnelarbeten på natur och på jord- och skogsbruk. Samhälls- och landskapsplanering nr 5. Institutionen för landskapsplanering, Ultuna.

Gustafsson, J.P., Bhattacharya, P. and **Karlton, E. 1999.** Mineralogy of poorly crystalline aluminium phases in the B horizon of podzols in southern Sweden. Applied Geochemistry. Vol. 14, 707-718.

**Johansson, M.-B., Nilsson, T., Olsson, M. 1999.** Miljökonsekvensbeskrivning av Skogsstyrelsens förslag till åtgärdsprogram för kalkning och vitalisering. Skogsstyrelsen Rapport 1999:1. 168 pp.

**Kresten, P. & Melkerud, P.-A. 1999.** Brynen från Åby 23:1, Ivetofta sn, Skåne. Geoarkeologiskt laboratorium. Analysrapport Nummer 6-1999. Riksantikvarieämbetet, Avd för arkeologiska undersökningar, Uppsala.

**Lode, E. 1999.** Wetland restoration: a survey of options for restoring peatlands. Studia forestalia Suecica 205. Swedish University of Agricultural Sciences, Faculty of Forestry, 1999. 30 p.

**Lundin, L. 1999.** Wetlands in the Baltic Sea Region. In: Lundin, L-C. (ed.). Water in Nature. Sustainable Water Management in the Baltic Sea Basin. The Baltic University - A Regional University Network. Uppsala University. Book I, pp 43-50.

**Nilsson, T. 1999.** Slutsatser om svensk skogsmarksalkning. Foredrag fra norsk-svensk seminar om sur nedbør og alkalisering. Kristiansand 1-3 september 1998. DN-notat 1999-5. 4 pp.

**Nilsson, T. 1999.** Miljöeffekter av alkalisering och vitalisering - sammanfattning av en miljökonsekvensbeskrivning. Sveriges lantbruksuniversitet, Fakta Skog Nr 7 1999. 4 pp.

**Olsson, M. 1999.** Soil survey in Sweden. In European Soil Bureau Booklet. (P.Bullock ed.).

Van der Salm, C., De Vries, W., **Olsson, M.**, & Raulund-Rasmussen, K. **1999.** Modelling impact of atmospheric deposition, nutrient cycling and soil weathering on the sustainability of nine forest ecosystems. Water, Air and Soil Pollution 109:101-135.

## 2000

**Avén, N. 2000.** Planeringsverktyg för skogsbrukets vattenhänsyn inom avrinningsområden. Examensarbete, 20p, Skogsvetarprogrammet, SLU.

**Berg, B. 2000.** Litter decomposition and organic matter turnover in northern forest soils. Forest Ecology And Management (133)1-2: 13-22.

**Berg, B. 2000.** Initial rates and limit values for decomposition of Scots pine and Norway spruce needle litter: a synthesis for N-fertilized forest stands. Canadian Journal of Forest Research 30 (1): 122-135.

**Berg, B., Johansson, M-B. & Meentemeyer, V. 2000.** Litter decomposition in a transect of Norway spruce forests: substrate quality and climate control. Canadian Journal of Forest Research 30: 1136-1147.

Bottner, P., Couteaux, M.M., Anderson, J. M., **Berg, B.**, Billes, G., Bolger, T., Casabianca, H., Romanya, J. & Rovira, P. **2000.** Decomposition of 13C-labelled plant material in a European 65-40° latitudinal transect of coniferous forest soils: simulation of climate change by translocation of soils. Soil-Biology-and-Biochemistry 32 (4): 527-543.

**EI Make, Mahmoud. 2000.** Base-Cations in Relation to Weathering of Phyllosilicates and Forest Management in Swedish Forest Ecosystems. Acta Universitatis Agriculturae Sueciae. Silvestria 165.

Florgård, C., Linnér, H., **Olsson, M., Olsson, S.**, Persson, G. & **Wiklander, G. 2000.** Grundvattensänkning på Hallandsås. Effekter på natur, jordbruk och skogsbruk. Institutionen för landskapsplanering Ultuna. Samhälls- och landskapsplanering nr 11.

Gustafsson, J.P., van Hees, P., Starr, M., **Karlsson, E.** & Lundström, U. **2000.** Partitioning

of base cations and sulphate between solid and dissolved phases in three podzolised forest soils. *Geoderma* 94 (2-4): 311-333.

Hailu, T., Negash, L. & **Olsson, M., 2000.** Millettia ferruginea from southern Ethiopia: Impacts on soil fertility and growth of maize. *Agroforestry Systems* 48: 9-24.

Ilvesniemi, H., Giesler, R., van Hees, P., Magnusson, T. & **Melkerud, P-A. 2000.** General description of the sampling techniques and the sites investigated in the Fennoscandinavian podzolization project. *Geoderma* 94 (2-4): 109-123.

**Karlton, E.,** Bain, D. C., Gustafsson, J-P., Mannerkoski, H., Murad, E., Wagner, U., Fraser, A. R., McHardy, W. J. & Starr, M. **2000.** Surface reactivity of poorly-ordered minerals in podzol B horizons. *Geoderma* 94 (2-4): 265-288.

**Liljergren, A. 2000.** Soil-Solution Nitrogen and Soil Organic Matter in a Silvopastoral Agroforestry System in the Midwestern U.S. Examensarbete, 20p, Agronomiprogrammet, SLU.

**Lundin, L. et. al. 2000.** Fältinstruktion för ståndortskartering av permanenta provytor vid riksskogstaxeringen 2000. Institutionen för skoglig marklära, SLU, Uppsala.

**Lundin, L. 2000.** Miljömål och miljöanalys inom ståndortskarteringen och integrerad monitoring. I: Miljömål för skogen - är vi på rätt väg? Skogskonferensen 5-6 december 2000.

Lundström, U. S, van Breemen, N, Bain, D. C., van Hees, PAW, Giesler, R., Gustafsson, J.P., Ilvesniemi, H., **Karlton, E., Melkerud, P-A., Olsson, M.,** Riise, G., Wahlberg, O., Bergelin, A. Bishop, K., Finlay, R., Jongmans, A.G., Magnusson, T., Mannerkoski, H., Nordgren, A., Nyberg, L., Starr, M., Strand, L. Tau. **2000.** Advances in understanding the podzolization process resulting from a multidisciplinary study of three coniferous forest soils in the nordic countries. *Geoderma* 94 (2-4): 335-353.

**Melkerud, P-A.,** Bain, D. C., Jongmans, A. G. & Tarvainen, T. **2000.** Chemical, mineralogical and morphological characterization of three podzols developed on glacial deposits in Northern Europe. *Geoderma* 94 (2-4): 125-148.

**Nilsson, T., Nilsson, Å. 2000.** Samordnad övervakning av barrförluster i Stockholms län. Länsstyrelsen i Stockholms län, Underlagsmaterial Nr 20, 2000. 44 pp.

**Olsson, M. 2000.** Bidrar marken till växthuseffekten - eller kan den hjälpa oss att lösa problemet? *Kungliga Skogs- och Lantbruksakademiens Tidskrift* 13:41-50.

**Olsson, M. 2000.** Skogsmarkens potential att påverka samhällets utsläpp av växthusgaser, främst CO<sub>2</sub>. I: Miljömål för skogen - är vi på rätt väg? Skogskonferensen 5-6 december 2000.

**Olsson, M. T. & Melkerud, P-A. 2000.** Weathering in three podzolized pedons on glacial deposits in northern Sweden and central Finland. *Geoderma* 94 (2-4): 149-161.

**Olsson, S. 2001.** Grundvattensänkning till följd av järnvägstunnel genom Hallandsås - miljökonsekvenser relaterade till förändrad kväveomsättning i mark. Examensarbeten vid institutionen för skoglig marklära, SLU.

Rytter, L., Sennerby Forsse, L. & **Alriksson, A. 2000.** Natural regeneration of grey alder (*Alnus incana* [L.] Moench.) stands after harvest. *Journal of Sustainable Forestry* 10 (3/4): 287-294.

Van Breemen, N., Finlay, R., Lundström, U., Jongman, A.G., Giesler, R. & **Olsson, M.** **2000.** Mycorrhizal weathering: A true case of mineral plant nutrition? *Biogeochemistry* 49: 53-67.

## 2001

**Alriksson, A. 2001.** Regional variability of Cd, Hg, Pb and C concentrations in different horizons of Swedish forest soils. *Water, Air, and Soil Pollution: Focus* 1: 325-341, 2001.

**Alriksson, A. & Eriksson, H.M. 2001.** Distribution of Cd, Cu, Pb and Zn in soil and vegetation compartments in stands of five boreal tree species in N.E. Sweden. *Water, Air and Soil Pollution: Focus* 1: 461-475, 2001.

**Faituri, M.Y.** El-Mahi, Y.E. & El-Hassan, G.A. **2001.** Effects of some salts and sodicity on the growth of a *Rhizobium leguminosarum* bv, viceae strain isolated from a salt-affected soil. *Can. J. Microbiol.* 47: 807-812.

**Gustafsson, M. 2001.** Carbon loss after forest drainage of three peatlands in southern Sweden. *Examensarbeten vid institutionen för skoglig marklära, SLU.* Nr 1.

Gustafsson, J-P.; **Karlton, E.** Lundström, U. & Westling, O. **2001.** Urvalskriterier för bedömning av markförsurning. *Skogsstyrelsen Rapport 11D*, 2001.

**Johansson, M-B., Nilsson, Å.** & Andersson, S. **2001.** LUSTRAAs fältförsöksytor och deras kolförråd. *Årsrapport 2000 LUSTRA, MISTRA-finansierat forskningsprogram*.

**Kolmert, Anna. 2001.** Teak in northern Laos. *Minor Field Studies No. 175.* Swedish University of Agricultural Sciences, International Office, Uppsala, October 2001.

Kresten, P. & **Melkerud, P.-A. 2001.** Stenfynd från väg 11, SU2, Järrestads sn, Skåne. Geoarkeologiskt Laboratorium. *Analysrapport nr 11-2001.* Riksantikvarieämbetet, Avd för arkeologiska undersökningar, Uppsala.

**Lode, E. 2001.** Natural Mire Hydrology in restoration of peatland functions. *Acta Universitatis Agriculturae Sueciae. Silvestria* 234.

**Lomander, A. & Johansson, M-B. 2001.** Changes in concentrations of Cd, Zn, Mn, Cu and Pb in spruce (*Picea Abies*) needle litter during decomposition. *Water, Air and Soil Pollution* 132: 165-184.

**Mendoza Vega. J. 2001.** Influence of soil type and land use/land cover on soil organic carbon amounts in Southeast Mexico. *Rapporter i skogsekologi och skoglig marklära.* Rapport 83. (Licentiatavhandling).

**Nilsson, T. 2001.** Wood ash application effects on elemental turnover in a cutover peatland and uptake in vegetation. *Acta Universitatis Agriculturae Sueciae. Silvestria* 208.

**Nilsson, T., Eriksson, H. 2001.** Långtidsverkan på avrinnande vatten av askåterföring till plantskog. *Slutrapport till Energimyndigheten.* 29 sid.

**Olsson, M. & Kishné, A.S. 2001.** Suggestions for soil sampling based on analysis of

spatial variation of soil organic carbon. Årsrapport 2000 LUSTRA, MISTRA-finansierat forskningsprogram.

**Stendahl, J. 2001.** Spatial aspects of forest and forest soil management. Acta Universitatis Agriculturae Sueciae. Silvestria 199.

## 2002

**Bergkvist, Åsa. 2002.** Handledare: Gunnar Wiklander. Små skogliga vattendrag i Värmland - Generell beskrivning, förekomst av traktorspår samt spårens inverkan på bottenfaunan. Examensarbete vid institutionen för skoglig marklära nr 6.

**Cerli, C., Celi, L., Johansson, M.-B. and Zanini, E. 2002.** Influence of thinning and time since planting on soil organic matter in spruce forests in Sweden. Abstract of Poster Papers. The Soil Resource Conservation. The Italian Soil Science Society (SISS) Yearly Conference, 8th to 9th of June 2002, Piacenza .

**Faituri, Y. Mikael. 2002.** Soil organic matter in Mediterranean and Scandinavian forest Ecosystems - dynamics of organic matter, nutrients, and monomeric phenolic compounds. Acta Universitatis Agriculturae Sueciae. Silvestria 236.

**Gille, Emma. 2002.** Handledare: Gunnar Wiklander. Den bäcknära zonen vid små skogliga vattendrag i Värmland - generell beskrivning, förekomst at traktorsår samt kvicksilverhalter i körpåverkat ytvatten. Examensarbete vid institutionen för skoglig marklära, SLU, nr 7.

Gregory, P.J., Ingram, J.S.I., Andersson, R., Betts, R.A., Brovkin, V., Chase, T.N., Grace, P.R., Hamilton, N., Hardy, T.B., Howden, S.M., Jenkins, A., Meybeck, M., **Olsson, M.**, Ortiz-Monasterio, I., Palm, C.A., Payn, T.W., Rummakainen, M., Schulze, R.E., Thiem, M., Valentin, C. & Wilkinsson, M.J. **2002.** Environmental consequences of alternative practices for intensifying crop production. Agriculture, Ecosystem and Environment 88, 279-290

**Isberg, Susanna. 2002.** Handledare: Erik Karlton. Elementkoncentrationer i gran utmed en markfuktighetsgradient. Examensarbete vid institutionen för skoglig marklära, SLU, nr 2.

**Lode, E. 2002.** Report from education collaboration project "Mire Ecology - Restoration of damaged peatlands and terminated peat cuttings. Department of Forest Soils, SLU.

**Lode, E., Ilomets, M. and Lundin, L. 2002.** Criteria for restoration of peat accumulating landscapes. In Schmielewski, G. And Rochefort, L. (eds.) Proceedings of the International Peat Symposium of International Peat Society "Peat in Horticulture - Quality and Environmental Challenges", Pärnu, Estonia 3-6 September 2002. pp. 229-236.

**Lundblad, M, Karlton. K. 2002.** Förslag till regional uppföljning av miljömålet "Bara naturlig fösurning" i Västra Götalands och Hallands län. Länsstyrelsen i Halland. Meddelande 2002:4 Bergkvist& Länsstyrelsen i Västra Götalands län, Publikation:2002:5.

**Lundin, L. and Lode, E. 2002.** Effects of peatland rewetting on the hydrochemistry. In Schmielewski, G. And Rochefort, L. (eds.) Proceedings of the International Peat Symposium of International Peat Society "Peat in Horticulture - Quality and

Environmental Challenges", Pärnu, Estonia 3-6 September 2002. pp. 252-255.

**Lode, E., Nilsson, T. & Lundin, L. 2002.** Variations in seasonal runoff distributions at catchments on different soil types. Proceedings of the XXII Nordic Hydrological Conference, Röros, Norway 4-7 August 2002. Nordic Hydrological Programme Report No. 47, 407-416.

**Lomander, Anja. 2002.** Organic matter turnover in forest and arable land. Temperature and moisture effects and dynamics of heavy metals. Acta Universitatis Agriculturae Sueciae. Silvestria 250.

**Lundin, L. 2002.** Emerging issues in forest management and stream water flow and quality. In; Fjeld, D. (ed.) Forest management practices for improved environmental services - ecological effects and technical solutions. SNS-69 Seminar, May 6-7, 2002. Danish Forest and Landscape Institute. Copenhagen.

**Lundin, L. 2002.** Hydrochemistry in rewetted peatlands with special attention on phosphorus turnover. BIOGEOEMON University of Reading, UK, August 17-21, Conference abstracts. p 144.

**Lundin, L. & Kvarnäs, H. 2002.** Long-term effects of forestry on runoff determined by modelled reference time series. Proceedings of the XXII Nordic Hydrological Conference, Röros, Norway 4-7 August 2002. Nordic Hydrological Programme Report No. 47, 239-247.

**Mendoza-Vega, Jorge. 2002.** Influences of Land use/land cover and soil type on Amounts of Soil organic carbon and soil characteristics. Acta Universitatis Agriculturae Sueciae Silvestria 252.

**Mendoza-Vega, J., Karlton, E., Olsson, M. 2002.** Estimaations of amounts of soil organic carbon and fine root carbon in land use and land cover classes, and soil types of Chiapas highlands, Mexico. Forest Ecology and Management 6087 (2002) 1-16.

**Munther, Fredrik. 2002.** Handledare: Erik Karlton. Kloridhalter i gran utmed en depositionsgradient för havssalter. Examensarbete vid institutionen för skoglig marklära, SLU, nr 3.

**Nilsson, T., Karlton, E., Rothpfeffer, C. 2002.** Effekter av rotröta (*Heterobasidion annosum*) på elementhalter i stamved från gran (*Picea abies* (L.) Karst.). KAM-rapport A70. 36 sid.

**Nilsson, T. & Lundin, L. 2002.** Markprovtagningens betydelse vid bestämning av markens kolförråd. Institutionen för skoglig marklära, SLU. Uppsala. 14s.

**Nilsson, T; Nilsson, Å och Larsson, K. 2002.** Effekter på markkemi, markvegetation och skogsproduktion fem år efter askåterföring till ett tallbestånd i Hälsningland. *Effects on soil chemistry, field vegetation and forest production five years after ash recycling to a pine stand in Hälsingland (central Sweden)*. Rapporter i skogsekologi och skoglig marklära. Rapport 85.

**Olsson, M. m. fl. 2002.** Land use strategies for reducing net greenhouse gas emissions. Progress Report 1999-2002.

**Olsson, M., Lundin, L. & Lode, E. 2002.** Utredning rörande torvutvinningens effekter för växthusgaser. Utredning för den statliga Torvutredningen. Institutionen för skoglig marklära, SLU. Rapport. 14s.

**Poggio, Laura.2002.** Handledare: Erik Karlén. Epiphytic algae on Norway spruce needles in Sweden - geographical distribution, timetrends and influence of site factors. MSc thesis at the Department of Forest Soils, SLU, nr 4. (*Epifytisk algpåväxt på granbarr i Sverige –geografisk utbredning, tidstrender och inflytande av ståndortsfaktorer*)

**Stendahl, J. Dahlin, B. 2002.** Possibilities for harvester-based forest inventory in thinnings. Scandinavian Journal of Forest Research 17 (6), 548-55pp.

**Stendahl, J. Olsson, M.T.** Snäll, S. Holmgren, P. **2002.** Influence of soil mineralogy and chemistry on site quality within geological regions in Sweden. Forest Ecology and Management 170 (1-3), 75-88pp.

**Wiklander, G. (RED). Markdagen 2002.** Forskningsnytt om mark. Rapporter i skogsekologi och skoglig marklära. Rapport 84.

**Zander, Nicklas. 2002.** Handledare: Gunnar Wiklander. Beskogad åkermark - förändringar av mark-pH efter plantering.. Examensarbete vid institutionen för skoglig marklära, SLU, nr 5.