

Primary publications in chronological order

- A1. Söderström B.E. 1975. Vertical distribution of microfungi in a spruce forest soil in the south of Sweden. *Transactions of the British mycological Society* 65, 419-425.
- A2. Söderström B.E. 1977. Vital staining of fungi in pure culture and in soil with fluorescein diacetate. *Soil Biology and Biochemistry* 9, 59-63.
- A3. Lundgren B., Bååth E., & Söderström B.E. 1978. Antagonistic effects of *Tolyposcladium* species. *Transactions of the British mycological Society* 70, 305-308.
- A4. Söderström B. & Bååth E. 1978. Soil microfungi in three Swedish coniferous forests. *Holarctic Ecology* 1, 62-72.
- A5. Bååth E., Lohm U., Lundgren B., Rosswall T., Söderström B., Sohlenius B. & Wiren A. 1978. Effects of supply of nitrogen and carbon on development of soil organism populations and pine seedlings: a microcosm experiment. *Oikos* 31, 153-163.
- A6. Söderström B.E. 1979. Some problems in assessing the fluorescein diacetate active fungal biomass in the soil. *Soil Biology and Biochemistry* 11, 147-148.
- A7. Söderström B.E. 1979. Seasonal fluctuations of active fungal biomass in the horizons of a podzolized pine forest soil in Central Sweden. *Soil Biology and Biochemistry* 11, 149-154.
- A8. Söderström B. & Bååth E. 1979. *Diademospora ramigera* gen. et sp. nov. from coniferous forest soil. *Transactions of the British mycological Society* 72, 340-342.
- A9. Blomquist G., Johansson E., Söderström B. & Wold S. 1979. Reproducibility of pyrolysis-gas chromatographic analyses of the mould *Penicillium brevi-compactum*. *Journal of Chromatography* 173, 7-17.
- A10. Blomquist G., Johansson E., Söderström B. & Wold S. 1979. Classification of fungi by means of pyrolysis gas chromatography-pattern recognition. *Journal of Chromatography* 173, 19-32.
- A11. Blomquist G., Johansson E., Söderström B. & Wold S. 1979. Data analysis of pyrolysis-chromatograms by means of SIMCA pattern recognition. *Journal of Analytical and Applied Pyrolysis* 1, 53-65.
- A12. Berg B. & Söderström B. 1979. Fungal mycelium and nitrogen content in decomposing pine needle litter. *Soil Biology and Biochemistry* 11, 339-341.
- A13. Domsch K.H., Beck Th., Anderson J.P.E., Söderström B., Parkinson D. & Trolldenier G. 1979. A comparison of methods for soil microbial populations and biomass studies. *Zeitschrift für Pflanzenernährung und Bodenkunde* 142, 520-533.
- A14. Bååth E. & Söderström B. 1979. The significance of hyphal diameter in calculations of fungal biovolume. *Oikos* 33, 11-14.

- A15. Bååth E., Lundgren B. & Söderström B. 1979. Effects of artificial rain on microbial activity and biomass. *Bulletin of Environmental Contamination and Toxicology* 23, 737-740.
- A16. Bååth E. & Söderström B. 1979. Fungal biomass and fungal immobilization in some Swedish coniferous forest soils. *Revue d'Ecologie et Biologie du Sol* 16, 477-489.
- A17. Bååth E. & Söderström B. 1980. Degradation of macro-molecules by microfungi isolated from different horizons of podzolic soils. *Canadian Journal of Botany* 58, 422-425.
- A18. Bååth E., Berg B., Lohm U., Lundgren B., Lundkvist H., Rosswall T., Söderström B. & Wiren A. 1980. Effects of experimental acidification and liming on soil organisms and decomposition in a pine forest. *Pedobiologia* 20, 85-100.
- A19. Bååth E. & Söderström B. 1980. Comparison of two methods for the estimation of soil fungal lengths. *Soil Biology and Biochemistry* 12, 385-387.
- A20. Clarholm M., Popovic B., Rosswall T., Söderström B., Sohlenius B., Staaf H. & Wiren A. 1981. Biological aspects of nitrogen mineralization in humus from a pine forest podzol incubated under different moisture and temperature conditions. *Oikos* 37, 137-145.
- A21. Bååth E., Lundgren B. & Söderström B. 1981. Effects of nitrogen fertilization on the biomass and activity of fungi and bacteria in a podzolic soil. *Zentralblatt für Bakteriologie, Mikrobiologie und Hygiene I. Abt. Orig. C* 2, 90-98.
- A22. Bååth E., Lohm U., Lundgren B., Rosswall T., Söderström B. & Sohlenius B. 1981. Impact of microbial-feeding animals on total soil activity and nitrogen dynamics: a soil microcosm experiment. *Oikos* 37, 257-264.
- A23. Bååth E. & Söderström B. 1982. Seasonal and spatial variations in fungal biomass in a forest soil. *Soil Biology and Biochemistry* 14, 353-358.
- A24. Söderström B., Wold S. & Blomquist G. 1982. Pyrolysis-gas chromatography combined with SIMCA pattern recognition for classification of fruitbodies of some ectomycorrhizal *Suillus* species. *Journal of General Microbiology* 128, 1773-1784.
- A25. Nordgren A., Bååth E. & Söderström B. 1983. Microfungi and microbial activity along a heavy metal gradient. *Applied and Environmental Microbiology* 45, 1829-1837.
- A26. Lundgren B. & Söderström B. 1983. Bacterial numbers in a pine forest soil in relation to environmental factors. *Soil Biology and Biochemistry* 15, 625-630.
- A27. Söderström B., Bååth E. & Lundgren B. 1983. Decrease in soil microbial activity and biomasses due to nitrogen amendments. *Canadian Journal of Microbiology* 29, 1500-1506.
- A28. Gams W. & Söderström B. 1983. *Oidiodendron scytaloides* n.sp. *Cryptogamie, Mycologie* 4, 239-243.

- A29. Olsson S., Söderström B. & Nordbring-Hertz B. 1984. A fast and simple method for classification of soil bacterial populations. *Zeitschrift für Pflanzenernährung und Bodenkunde* 147, 198-202.
- A30. Söderström B. & Frisvad J. 1984. Separation of closely related asymmetric *Penicillia* by pyrolysis gas chromatography and mycotoxin production. *Mycologia* 76, 408-419.
- A31. Söderström B., Liljeroth E. & Odham G. 1984. Separation of nitrogen fertilized podzolic soils by pyrolysis-GC of soil extracts. *Acta Agriculture Scandinavica* 34, 107-112.
- A32. Rühling Å., Bååth E., Nordgren A. & Söderström B. 1984. Fungi in metal contaminated soil near the Gusum brass mill, Sweden. *Ambio* 13, 34-36.
- A33. Bååth E., Lundgren B. & Söderström B. 1984. Fungal populations in podzolic soil experimentally acidified with sulfuric acid. *Microbial Ecology* 10, 197-203.
- A34. Blomquist G.K., Ström G.B. & Söderström B. 1984. Separation of fungal propagules by partition in aqueous polymer two-phase systems. *Applied and Environmental Microbiology* 47, 1316-1318.
- A35. Nordgren A., Bååth E. & Söderström B. 1985. Soil microfungi in an area polluted by heavy metals. *Canadian Journal of Botany* 63, 448-455.
- A36. Nordgren A., Kauri T., Bååth E. & Söderström B. 1986. Soil microbial activity, mycelial lengths and physiological groups of bacteria in a heavy metal polluted area. *Environmental Pollution (Series A)* 41, 89-100.
- A37. Söderström B. & Erland S. 1986. Isolation of fluorescein diacetate stained living hyphae from soil by micromanipulation. *Transactions of the British mycological Society* 86, 465-468.
- A38. Söderström B. & Read D.J. 1987. Respiratory activity of intact and excised ectomycorrhizal mycelial systems growing in unsterilized soil. *Soil Biology and Biochemistry* 19, 231-236.
- A39. Olsson S., Bååth E. & Söderström B. 1987. Growth of *Verticillium dahliae* Kleb. hyphae and bacteria along the roots of rape (*Brassica napus* L.) seedlings. *Canadian Journal of Microbiology* 33, 916-919.
- A40. Bååth E. & Söderström B. 1988. FDA-stained fungal mycelium and respiration rate in reinoculated sterile soil. *Soil Biology and Biochemistry* 20, 403-404.
- A41. Duddridge J.A., Finlay R.D., Read D.J. & Söderström B. 1988. The structure and function of the vegetative mycelium of ectomycorrhizal plants. III. Ultrastructural and autoradiographic analysis of carbon distribution through intact mycelial systems. *New Phytologist* 108, 183-188.

- A42. Söderström B., Finlay, R. & Read, D. 1988. The structure and function of the vegetative mycelium of ectomycorrhizal plants. IV. Qualitative analysis of carbohydrate content of mycelium interconnecting host plants. *New Phytologist* 109, 163-166.
- A43. Finlay R.D., Ek H., Odham G. & Söderström B. 1988. Mycelial uptake, translocation and assimilation of nitrogen from ¹⁵N-labelled ammonium by *Pinus sylvestris* plants infected with four different ectomycorrhizal fungi. *New Phytologist* 110, 59-66.
- A44. Nordgren A., Bååth E. & Söderström, B. 1988. Basal respiration, lag time and other microbially significant parameters of glutamic acid decomposition in heavy metal contaminated soils. *Soil Biology and Biochemistry* 20, 949-954.
- A45. Ström G., Blomquist G. & Söderström B. 1989. A chemotaxonomic method for classification of asymmetric penicillia by means of cross-partitioning in aqueous two phase systems combined with SIMCA pattern recognition analysis. *Journal of Applied Bacteriology* 66, 461-467.
- A46. Nohrstedt H.-Ö., Arnebrant K., Bååth E. & Söderström B. 1989. Changes in carbon, respiration, ATP and microbial biomass in nitrogen fertilized forest soils in Sweden. *Canadian Journal of Forest Research* 19, 323-328.
- A47. Finlay R.D., Ek H., Odham G. & Söderström B. 1989. Uptake, translocation and assimilation of nitrogen from ¹⁵N-labelled ammonium and nitrate sources by intact ectomycorrhizal systems of *Fagus sylvatica* infected with *Paxillus involutus*. *New Phytologist* 113, 47-55.
- A48. Söderström B. 1989. Ectomycorrhiza - ecology of the fungal partner. *Karstenia* 28, 48.
- A49. Arnebrant K., Bååth E. & Söderström B. 1990. Changes in microfungus community structure after fertilization of Scots pine forest soil with ammonium nitrate or urea. *Soil Biology and Biochemistry* 22, 309-312.
- A50. Rühling Å. & Söderström B. 1990. Changes in fruitbody production of mycorrhizal and litter decomposing macromycetes in heavy metal polluted coniferous forests in north Sweden. *Water, Air and Soil Pollution* 49, 375-387.
- A51. Ek H., Finlay R.D., Söderström B. & Odham G. 1990. Determination of ¹⁵N-labelled ammonium and total nitrogen in plant and fungal systems using mass spectrometry. *Journal of Microbiological Methods* 11, 169-176.
- A52. Berg B., Ekbohm G., Staaf H. & Söderström B. 1991. Reduction of decomposition rates of Scots pine needle litter due to heavy-metal pollution. *Water, Air and Soil Pollution* 59, 164-177.
- A53. Erland S. & Söderström B. 1990. Effects of liming on ectomycorrhizal fungi infecting *Pinus sylvestris* L. I. Mycorrhizal infection in limed humus in the laboratory and isolation of fungi from mycorrhizal roots. *New Phytologist* 115, 675-682.

- A54. Erland S. & Söderström B. 1990. Effects of liming on ectomycorrhizal fungi infecting *Pinus sylvestris* L. II. Growth rates in pure culture at different pH values compared to growth rates in symbiosis with the host plant. *New Phytologist* 115, 683-688.
- A55. Erland S. & Söderström B. 1991. Effects of liming on ectomycorrhizal fungi infecting *Pinus sylvestris*. III. Saprophytic growth and host plant infection at different pH values by some ectomycorrhizal fungi in unsterile humus. *New Phytologist* 117, 405-411.
- A56. Erland S. & Söderström B. 1991. Effects of lime and ash treatments on ectomycorrhizal infection of *Pinus sylvestris* L. seedlings planted in a pine forest. *Scandinavian Journal of Forest Research* 6, 519-525.
- A57. Erland S., Finlay R.F. & Söderström B. 1991. The influence of substrate pH on carbon translocation in ectomycorrhizal and non mycorrhizal pine seedlings. *New Phytologist* 119, 235-242.
- A58. Nilsson M., Bååth E. & Söderström B. 1992. The microfungus communities of a mixed mire in northern Sweden. *Canadian Journal of Botany* 70, 272-276.
- A59. Arnebrant K. & Söderström B. 1992. Effects of different fertilizer treatments on ectomycorrhizal colonization potential in two Scots pine forests in Sweden. *Forest Ecology and Management* 53, 77-89.
- A60. Arnebrant K., Ek., Finlay R.F. & Söderström B. 1992. Nitrogen translocation between *Alnus glutinosa* (L.) Gaertn. seedlings inoculated with *Frankia* sp and *Pinus contorta* Dougl. ex Loud seedlings connected by a common ectomycorrhizal mycelium. *New Phytologist* 124, 231-242
- A61. Timonen, S., Finlay, R.D., Söderström, B. & Raudaskoski, M. 1993. Identification of cytoskeletal proteins in pine ectomycorrhizas. *New Phytologist* 124, 83-92.
- A62. Ek H., Andersson S., Arnebrant K. & Söderström B. 1994. Growth and assimilation of NH_4^+ and NO_3^- by *Paxillus involutus* in association with *Betula pendula* and *Picea abies* as affected by soil. *New Phytologist* 128, 629-637.
- A63. Ek H., Sjögren M., Arnebrant K. & Söderström B. 1994. Extramatrical mycelial growth, biomass allocation and nitrogen uptake in ectomycorrhizal systems in response to collembolan grazing. *Applied Soil Ecology* 1, 155-169.
- A64. Chalot M., Brun, A., Finlay R.F. & Söderström B. 1994. Respiration of $[^{14}\text{C}]$ alanine by the ectomycorrhizal fungus *Paxillus involutus*. *FEMS Microbiology Letters* 121, 87-92
- A65. Chalot M., Brun, A., Finlay R.F. & Söderström B. 1994. Metabolism of $[^{14}\text{C}]$ glutamate and $[^{14}\text{C}]$ glutamine by the ectomycorrhizal fungus *Paxillus involutus*. *Microbiology* 140, 1641-1649.

- A66. Brun A., Chalot M., Finlay R.D & Söderström B. 1995. Structure and function of the ectomycorrhizal association between *Paxillus involutus* (Batsch) Fr. and *Betula pendula* (Roth.). I. Dynamics of mycorrhiza formation. *New Phytologist* 129, 487-493.
- A67. Andersson S. & Söderström B. 1995. Effects of lime (CaCO₃) on ectomycorrhizal colonization of *Picea abies* (L.) Karst. seedlings planted in a spruce forest soil. *Scandinavian Journal of Forest Research* 10, 149-154.
- A68. Olsson P.A., Bååth E., Jakobsen I. & Söderström B. 1995. The use of phospholipid and neutral lipid fatty acids to estimate biomass of arbuscular mycorrhizal fungi in soil. *Mycological Research* 99, 623-629.
- A69. Chalot M., Kyövitä, M.-M., Brun, A., Finlay R.F. & Söderström B. 1995. Factors affecting amino acid uptake by the ectomycorrhizal fungus *Paxillus involutus*. *Mycological Research* 99, 1131-1138.
- A70. Chalot M., Finlay R.D., Ek H. & Söderström B. 1995. Metabolism of (15N) alanine by the ectomycorrhizal fungus *Paxillus involutus*. *Experimental Mycology* 19, 297-304.
- A71. Arnebrant K., Bååth E., Söderström B. & Nohrstedt H.-Ö. 1996. Soil microbial activity in eleven Swedish coniferous forests in relation to site fertility and nitrogen fertilization. *Scandinavian Journal of Forest Research* 11, 1-6.
- A72. Timonen S., Söderström B. & Raudaskoski M. 1996. Dynamics of cytoskeletal proteins in developing pine ectomycorrhiza. *Mycorrhiza* 6, 423-429.
- A73. Timonen S., Finlay R.D., Olsson S. & Söderström B. 1996. Dynamics of phosphorus translocation in intact ectomycorrhizal systems - non-destructive monitoring using a β -scanner. *FEMS Microbiology Ecology* 19, 171-180.
- A74. Andersson S., Jensen P. & Söderström B. 1996. Effects of mycorrhizal colonization by *Paxillus involutus* on uptake of Ca and P by *Picea abies* and *Betula pendula* grown in unlimed and limed peat. *New Phytologist* 133, 695-704.
- A75. Chalot M., Brun A., Botton B. & Söderström B. 1996. Kinetics, energetics and specificity of a general amino acid transporter from the ectomycorrhizal fungus *Paxillus involutus*. *Microbiology* 142, 1749-1756.
- A76. Olsson P.A., Bååth E., Jakobsen I. & Söderström B. 1996. Soil bacteria respond to presence of roots but not to arbuscular mycorrhizal mycelium. *Soil Biology and Biochemistry* 28, 463-470.
- A77. Olsson P.-A., Chalot M., Bååth E., Finlay R.D. & Söderström B. 1996. Ectomycorrhizal mycelia reduce bacterial activity in a sandy soil. *FEMS Microbiology Ecology* 21, 77-86.
- A78. Ek H., Andersson S. & Söderström B. 1996. Carbon and nitrogen flow in Silver birch and Norway spruce connected by a common mycorrhizal mycelium. *Mycorrhiza* 6, 465-467.

- A79. Andersson S., Ek H. & Söderström B. 1997. Effects of liming on the uptake of organic and inorganic nitrogen by mycorrhizal (*Paxillus involutus*) and nonmycorrhizal *Pinus sylvestris* plants. *New Phytologist* 135, 763-771.
- A80. Brussard L., Behan-Pelletier V., Bignell D., Brown V.K., Didden W., Folgarait P., Fragoso C., Freckman D.W., Gupta V.V.S.R., Hattori T., Hawksworth D.L., Klopatek C., Lavelle P., Malloch D.W., Rusek J., Söderström B., Tiedje J.M. & Virginia R.A. 1997. Biodiversity and ecosystem functioning in soil. *Ambio* 26, 563-570.
- A81. Olsson, P.A., Francis, R., Read, D.J. & Söderström, B. 1998. Growth of arbuscular mycorrhizal mycelium in calcareous dune sand and its interactions with other soil microorganisms as estimated by measurement of specific fatty acids. *Plant and Soil* 201, 9-16.
- A82. Javelle, A., Chalot, M., Söderström, B. & Botton, B. 1999. Ammonium and methylamine transport by the ectomycorrhizal fungus *Paxillus involutus* and ectomycorrhizas. *FEMS Microbiology Ecology* 30, 355-366.
- A83. van Aarle, I.M., Olsson, P.A. & Söderström, B. 2001. Microscopical detection of phosphatase activity of saprophytic and arbuscular mycorrhizal fungi using a fluorogenic substrate. *Mycologia* 93, 17-24
- A84. Bidartondo, M.I., Ek, H., Wallander, H. & Söderström, B. 2001. Carbon sink strength in relation to ammonium and apatite additions of *Suillus pungens*, *Rhizopogon* spp., and *Paxillus involutus* in ectomycorrhizal association with *Pinus muricata*. *New Phytologist* 151, 543-550.
- A85. Schweiger, P.F., Rouhier, H. & Söderström, B. 2002. Visualization of ectomycorrhizal rhizomorph structure using laser scanning confocal microscopy. *Mycological Research* 106, 349-354
- A86. van Aarle, I.M., Olsson, P.A. & Söderström, B. 2002. Arbuscular mycorrhizal fungi respond to the substrate pH of their extraradical mycelium by altered growth and root colonization. *New Phytologist* 155, 173-182.
- A87. Dickson, S., Schweiger, P., Smith, A., Söderström, B. & Smith, S. 2003. Paired arbuscules in the Arum-type arbuscular mycorrhizal symbiosis with *Linum usitatissimum* L. *Canadian Journal of Botany* 81, 457-463.
- A88. van Arle I.M., Söderström, B. & Olsson, P.A. 2003. Growth and interactions of arbuscular mycorrhizal fungi in soils from limestone and acid rock habitats. *Soil Biology and Biochemistry* 35, 1557-1564.
- A89. Johansson, T., Le Quéré, A., Ahrén, D., Söderström, B., Erlandsson, R., Lundeberg, J., Uhlén, M., & Tunlid, A. 2004. Transcriptional responses of *Paxillus involutus* and *Betula pendula* during formation of ectomycorrhizal root tissue. *Molecular Plant-Microbe Interactions* 17, 201-215

A90. Le Quéré, A., Wright, D.P., Söderström, B., Tunlid, A., Johansson, T. 2005. Global patterns of gene regulation associated with the development of ectomycorrhiza between birch (*Betula pendula* Roth.) and *Paxillus involutus* (Batsch) Fr. *Molecular Plant-Microbe Interactions* 18, 659-673.

A91. Wright, D.P., Johansson, T., Le Quéré, A., Söderström, B. & Tunlid, A. 2005. Spatial patterns of gene expression in the extramatrical mycelium and mycorrhizal root tips formed by the ectomycorrhizal fungus *Paxillus involutus* in association with birch (*Betula pendula* Roth.) seedlings in soil microcosms. *New Phytologist* 167, 579-596.