



Curriculum Vitae, Susanne Erland

Swedish citizen Born 1961, Lund, Sweden. Married 1993. Two children, born 1996 & 1998.

Language skills Swedish: mother tongue, English: excellent, German: fluent

Present affiliation Max Planck Institute for Chemical Ecology Hans-Knoell-Strasse 8 07745 Jena, Germany.
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1. Academic degrees

1999 Docent (Associate Professor), Microbial Ecology, Lund University, May 26

1990 Fil Dr (PhD) Microbiology / Microbial Ecology, Lund University, Dec.14.

Thesis: Erland, S. (1990) Effects of liming on pine ectomycorrhiza. ISBN 91-7105-014-0.

1983 Fil Kand (BSc) Biology, Lund University

2. Positions held

2014- **Coordinator, scientific co-worker** MPI-CE Jena

2009- 2013 Coordinator Beutenberg Campus Organisation, Jena. **Researcher** MPI-CE, Jena.

2008 Volunteer work Coordination tasks, Beutenberg Campus, Jena. Research projects MPI-CE, Jena. Finishing projects at Lund University.

2000-2007 Researcher (Associate Professor), Division of Microbial Ecology, Lund University

1992-2000 Assistant Professor (forskarassistent), Ecology dept., Microbial Ecology, Lund University

1991-1992 Postdoc, Depts of Plant and Soil Science & Mol Biol, Univ of Aberdeen, Scotland

1984-1990 PhD student position (doktorandtjänst), Ecology dept., Microbial Ecology, Lund University

3. Maternity leave

1996-2000 25 months maternity leave in total

4. Scientific credentials

a. Referee and evaluation work

Reviewer for Research council assignments

2009-2010 Chairman, Strong Research Environments panel for FORMAS, Sweden.

2006 Chairman of the Climate and Biogeochemistry panel for FORMAS, Sweden.

2002-2005 Member of the Climate and Biogeochemistry panel for FORMAS, Sweden.

2001-2002 Member of the Micro- and Macrobiology panel for Enterprise Ireland.

Ad Hoc- commissions - research grant applications

Grant bodies: SJFR/ Sweden, NERC/ UK, NFR/Norway, Enterprise Ireland

I have been consulted as:

- **referee** by *Canadian Journal of Botany, Mycological Research, New Phytologist, Oikos, Journal of Ecology, Phytion, Plant & Soil, Ecography, FEMS*

- **member of the board of scientific examiners** for **1.** Audrius Menkises PhD-thesis 9/11 2005, Dept. of Forest Mycology and Pathology, SLU, Uppsala. **2.** Margaret Molle's PhD-thesis; 21/9 2005, Plant Ecology and Systematics, Ecology Department, Lund University. **3.** Emma Kritzberg's PhD-thesis 18/3 2005, Limnology, Ecology Department, Lund University. **4.** Sofia Nilsson's PhD-thesis 26/10 2004, SLU, Uppsala. **5.** Helene Bracht Jørgensen's PhD-thesis 13/12 2002, Animal Ecology, Ecology Department, Lund University.

- **scientific evaluator** of the applicants for a position as associate professor in Fungal Molecular Ecology, University of Copenhagen, Denmark in 2005.

- **scientific evaluator** of the applicants for a position as "førsteamanuensis"(associate professor) in mycology at UiO, University of Oslo, Norway in 2004.

b. Scientific conferences and meetings attended

I have published 29 abstracts from 48 international meetings 1986-2019 (since 2007 listed).

2019 ESITO, September 15-20, Villasimius, Sardinia (poster)

2012 ISBE, August 12-17, Lund, Sweden (poster)

2012 ISOT, June 23-27, Stockholm, Sweden (organiser)

- 2010** EVOLF MMX; Christmas Island, Australia Dec.12-15. (organiser)
2008 SEMIO-08, Arusha, Tanzania Feb.11-16.
2007 Keystone symposium, Chemical senses: From genes to perception. Jan. 21-25, Snowbird, Utah.
2007 NordForsk network meeting, UNITE, Stockholm, Arlanda March 6-8. (organiser)

c. Scientific visits and work periods abroad

Since 1985 I have made work visits to over 20 laboratories in different universities in nine countries.

d. Extramural grants

I attracted more than 14 million SEK (ca 14 000 EUR) in external research funding 1992-2007.

e. Peer review publications

I have published 25 scientific papers (cited 1 752 times) in international peer review Journals (see page 3 & 4 for the full list). My H-index is 19.

5. Pedagogic credentials

a. Undergraduate teaching and supervision

Teaching experience (totally 306 "lektorstimmar" or lecture hours, 1 LT translates to 3 clock hours)

b. Graduate teaching and supervision

Supervision of post graduate students

2003-2008 Jenny Hedh (PhD- project, **FD March 7, 2008.**) (**main supervisor**) FORMAS-project. The use of molecular markers for identifying species diversity and functional variation of ectomycorrhizal fungi.(A. Tunlid, associate supervisor).

1998-2003 David Hagerberg (PhD-project, **FD March 28, 2003**) (associate supervisor). The growth of external ectomycorrhizal mycelia in the field in relation to host nutrient status and local addition of mineral sources. Supervising together with Dr. Håkan Wallander, Lund on NUTEK/STEM-project.

1995-2000 Shahid Mahmood (PhD-project, **FD May 16, 2000.**) (**main supervisor**). Ectomycorrhizal community structure and function in relation to forest residue harvesting and wood ash applications. Supervising together with professor R.D. Finlay, SLU., Uppsala and Dr. Håkan Wallander, Lund on NUTEK/STEM-project. **FD May 16, 2000.**

1995-1998 Tina Jonsson, (Fil.Lic. March, 1998.) (main supervisor). Ectomycorrhizal Root Communities in Spruce Forests, studied in relation to N-deposition and Liming. Supervising together with professor R.D. Finlay, SLU., Uppsala on SJFR-project.

6. Administrative credentials

Network coordination

2019- Coordinating the Max Planck Center "nGICE" Next Generation Insect Chemical Ecology. Main grant holders: Bill S Hansson MP, Christer Löfstedt LU and Rickard Ignell SLU. Granted July 2019, starting August 2019, official opening Jan. 2020. Financed 2020-2024.

2018-2019 Coordinating the application for the Max Planck Center, nGICE with LU and SLU

2003-2007 Coordinator of the Nordforsk network "Identification and ecology of ectomycorrhizal fungi" with the main purpose to organise a Nordic sequence database for identification of EM-fungi (UNITE). See <http://unite.ut.ee/> & <http://www2.dpes.gu.se/project/unite/>

Administrative boards and committees

2009-2014 Member of the Coordinator's committee, Beutenberg Campus, Jena

2000-2006 Member of the Ecology department board (Ekologiska institutionens styrelse)

Organisation of conferences and workshops

2019 nGICE meeting, Bäckaskog, Sweden, August 12-13.

2017 MP-CE Evol. Neuro. Group leader retreat, Parismåla, Sweden June 27-29.

2017 MP Vice President coordinator retreat, Parismåla, Sweden June 23-26.

2017 MP President circle retreat Bäckaskog castle and Parismåla, Sweden May 4-7.

2013 Open Campus, March 1, 2013 Beutenberg Campus, Jena

2012 ISOT June 23-27, Stockholm, Sweden

2011 Beutenberg Campus/ IMPRS-gBGC Workshop on Method and Concept Transfer, Jena. June 9th.

2010 EVOLF MMX (evolution of olfaction 2010), Christmas Island, Australia Dec. 12-15.

2010 Beutenberg Campus/ LGSA Workshop on Method and Concept Transfer, Jena. June 10th.

2009 Beutenberg Campus/ JSMC Workshop on Method and Concept Transfer, Jena. June 4th.

2008 5th Biannual Campus Workshop on Method and Concept Transfer, Beutenberg Campus, Jena. November 27th.

- 2007** NordForsk Network Meeting about the UNITE Database, Stockholm, Arlanda, March 6-8.
2005 NordForsk Network Meeting about the UNITE Database, Höör, November 16-18.

7. Work in the scientific community

I have been active in a national debate on possibilities for younger scientists in the Swedish research community, especially women, to establish as permanent scientific staff at the Universities

2006 Invited to debate at the "Institute for Futures Studies", Stockholm March 8. Article in "Teknik och vetenskap" October issue.

2005 Statements were made in: Articles in the daily press, *Sydsvenskan* (July, August and November), *Skånska dagbladet* (July, September), *Aftonbladets* web edition (September). Articles in special press, Swedish Research Council web journal "tentakel" (November), *Genus* (August), *Naturvetaren* (science union journal) and LUM (Lund University staff journal) (both in November). Swedish national radio "P1 morgon" (August). Physical debates, one organised by the "Research Political Institute" in Lund (November) and one by the Scientist Union "Naturvetarna" (December).

8. Full list of publications:

A. International, peer-reviewed publications

- 26 Knaden, M., Bisch-Knaden, S., Linz, J., Reinecke, A., Krieger, J., Erland, S., Harzsch, S., Hansson, B. S. (2019). Acetoin is a key odor for resource location in the giant robber crab *Birgus latro*. *The Journal of Experimental Biology*, 222(12)
- 25 Jakob Krieger, Ronald Grady, Michelle Drew, Susanne Erland, Marcus Stensmyr, Steffen Harzsch, Bill S Hansson. (2012) Giant Robber Crabs Monitored from Space: GPS-Based Studies on Christmas Island (indian Ocean). *PLOS ONE*. Vol.7 Issue11
- 24 Michelle Drew, Steffen Harzsch, Marcus Stensmyr, Susanne Erland, Bill S Hansson. (2010) A review of the biology and ecology of the Robber Crab, *Birgus latro* (Linnaeus, 1767) (Anomura: Coenobitidae) *Zoologischer Anzeiger*. 249, 45-67.
- 23 K Abarenkov, R H Nilsson, K-H Larsson, I J Alexander, U Eberhardt, S Erland, K Høiland, R Kjøller, E Larsson, T Pennanen, R Sen, A F S Taylor, L Tedersoo, B M Ursing, T Vrålstad, K Liimatainen, U Peintner, U Kõljalg (2010) The UNITE database for molecular identification of fungi – recent updates and future perspectives. *New Phytol.* **186**:281-285.
- 22 Hedh J, Samson P, Erland S, Tunlid A.(2008) Multiple gene genealogies and species recognition in the ectomycorrhizal fungus *Paxillus involutus*. *Mycological Research* **112**: 965-975.
- 21 Hedh J, Wallander H, Erland S.(2008) Ectomycorrhizal mycelial species composition in apatite amended and non-amended mesh bags buried in a phosphorus-poor spruce forest. *Mycological Research* **112**: 681-688.
- 20 Kõljalg U, Larsson K-H, Abarenkov K, R. Henrik Nilsson R H, Alexander I J , Eberhardt U, Erland S, Høiland K, Kjøller R, Larsson E, Pennanen T, Sen R, Taylor A F S, Vrålstad T, Tedersoo L, Ursing B M. (2005) UNITE – a database providing web based methods for the molecular identification of ectomycorrhizal fungi *New Phytol.* **166** (1063-1068).
- 19 M.C. Stensmyr, S. Erland, E. Hallberg, Wallén, P. Greenaway, and B. S. Hansson (2005) Insect-like olfactory adaptations in the terrestrial giant robber crab *Current Biology* **15** (116-121).
- 18 Le Quere A., Schützendübel A., Rajashekar B., Canbäck B., Hedh J., Erland S., Johansson T., Tunlid A. (2004) Divergence in gene expression related to variation in host specificity of an ectomycorrhizal fungus. *Molecular Ecology* **13**, 3809-3819.
- 17 Mahmood, S., Finlay, R. D., Wallander, H. & Erland, S. (2002). Effects of granulated wood ash on the ectomycorrhizal community structure on spruce roots in southern Sweden. *Forest Ecology and Management* **160** (1-3): 65-74.
- 16 Mahmood, S., Finlay, R. D., Erland, S. & Wallander, H. (2001). Solubilisation and colonisation of wood ash by ectomycorrhizal fungi isolated from a wood ash fertilised spruce forest. *FEMS Microbiology Ecology* **35**, 151-161.
- 15 Olsson, P.A., Münzenberger, B., Mahmood, S & Erland, S. (2000) Molecular and morphological evidence for a three-way association between *Pinus sylvestris*, *Suillus bovinus* and *Gomphidius roseus*. *Mycological Research* **104**(1372-1378).
- 14 Mahmood, S., Finlay, R. D. & Erland, S. (1999). Effects of repeated harvesting of forest residues on the ectomycorrhizal community in a Swedish spruce forest. *New Phytol.* **142**, 577-585.
- 13 Jonsson, T., Kokalj, S., Finlay, R.D. & Erland, S. (1999). Ectomycorrhizal community structure in a limed spruce forest. *Mycol. Res.* **103** 501-508.
- 12 Erland, S., Mahmood, S., Jonsson, T. & Finlay, R. D. (1999). Below-ground ectomycorrhizal community structure in two *Picea abies* forests in Southern Sweden. *Scandinavian Journal of Forest Research* **14**, 193-198.

- 11 Persson, Y., Erland, S. & Jansson H. B (1996). Comparison between the nematophagous fungus *Arthrobotrys oligospora* and other related species using RFLP analysis of the PCR-amplified ITS region of ribosomal DNA. *Mycological Research*, **100**, 531-534.
- 10 Erland, S. (1995). Abundance of *Tylospora fibrillosa* ectomycorrhizas in a South Swedish spruce forest measured by RFLP analysis of the PCR-amplified r-DNA ITS region. *Mycological Research*, **99**, 1425-1428.
- 9 Erland, S., Henrion, B., Martin, F., Glover, L. A. and Alexander, I. J. (1994). Identification of the ectomycorrhizal basidiomycete *Tylospora fibrillosa* by RFLP analysis of the PCR amplified ITS and IGS regions of ribosomal DNA. *New Phytologist* , **126**, 525-532.
- 8 Erland, S. & Finlay, R. D. (1992) Effects of temperature and incubation time on the ability of three ectomycorrhizal fungi to colonize *Pinus sylvestris* roots. *Mycological Research* **96**, 270-272.
- 7 Erland, S., Finlay, R. D. & Söderström B. (1991) The influence of substrate pH on carbon translocation in ectomycorrhizal and non mycorrhizal pine seedlings. *New Phytol.* **119**, 235-242.
- 6 Erland, S. & Söderström, B. (1991). Effects of lime and ash treatments on ectomycorrhizal infection of *Pinus sylvestris* L. seedlings planted in a pine forest. *Scand. J. For. Res.* **6**, 519-525.
- 5 Erland, S. & Söderström, B. (1990). Effects of liming on ectomycorrhizal fungi infecting *Pinus sylvestris* L. III. Saprophytic growth and host plant infection at different pH values by some ectomycorrhizal fungi in unsterile humus. *New Phytol.* **117**, 405-411.
- 4 Erland, S., Söderström, B. & Andersson, S. (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 Phytol.* **115**, 683-688.
- 3 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 Phytol.* **115**, 675-682.
- 2 Erland, S., Finlay, R & Söderström, B (1989). The effects of liming on mycelial colonization and carbon allocation in ectomycorrhizal mycelia attached to *Pinus sylvestris* plants. *Agric., Ecosystems Environ.*, **28**: 11-114.
- 1 Söderström, B. & Erland, S. (1986). Isolation of fluorescein acetate stained hyphae from soil by micromanipulation. *Trans. Br. mycol. Soc.* **86**, 465-468.

B. Reviews and book chapters

- 4 Erland S., Taylor AFS (2002) Diversity of fungal ectomycorrhizal communities in relation to the abiotic environment. In; *Mycorrhizal Ecology* (Editors; M. van der Heijden & I. Sanders). Ecological Studies vol. **157**. Springer p.p. 163-199.
- 3 Erland, S. & Taylor, A. F. S. (1999). Resupinate Ectomycorrhizal Fungi- with emphasis on the genera *Amphinema*, *Piloderma*, *Tomentella* and *Tylospora*. In; *Ectomycorrhizal Fungi: Key Genera in Profile* (Editors; J.W.G. Cairney & S.M. Chambers) Springer.
- 2 Persson, Y., Erland, S. & Jansson H. B (1996). Identification of nematode-trapping fungi using RFLP-analysis of PCR-amplified rDNA. In; *Monitoring Antagonistic Fungi Deliberately Released into the Environment* (Editors; D. Funck-Jensen, H-B. Jansson & A. Tronsmo) (pp. 129-132)
- 1 Erland, S. (1992) Effects of liming on pine ectomycorrhiza. In *Mycorrhizas in Ecosystems* (Ed. D.J. Read, D. H. Lewis, A. H. Fitter & I. J. Alexander) pp.113-119. University Press. Cambridge, U.K.

C. National publications

- 3 Erland S. (2001). Wood-ash and ectomycorrhizal community structure. In: *Environmental consequences of recycling wood-ash to forests.* (Ed. L Högbom, H-Ö Nohrstedt)pp 31-33. Skog Forsk Report No. 2, 2001.
- 2 Erland S. & Andersson S. (1996). Ektomykorrhiza och skogsmarkskalkning. I; *Skogsmarkskalkning, resultat och slutsatser från Naturvårdsverkets försöksverksamhet* (Ed. H. Staaf, T. Persson & U. Bertills)pp. 92-100. Rapport 4559, Naturvårdsverket förlag, ISBN 91-620-4559-8
- 1 Erland S. (1990). Mykorrhiza-underjordisk verksamhet. *Puggehatten* **3**, 4-6.