

1 May 2011



List of publications and presentations

Scientific publications

1. Beier, C. (2004) Interactions of elevated CO₂ and temperature on terrestrial ecosystem structure and functioning – the role of whole-ecosystem manipulation experiments. *New Phytologist*, 162, 243-245.
2. Jana L. Heisler and Jake F. Weltzin (2004) Variability matters: towards a perspective on the influence of precipitation on terrestrial ecosystems. *New Phytologists*, 172, 189-192.
3. Andresen, L. C. & Michelsen, A. (2005) Off-season uptake of nitrogen in temperate heath vegetation. *Oecologia* 144; 585 - 597.
4. Maraldo K, Christensen B, Strandberg B, Holmstrup M (2006) Effects of copper on enchytraeids in the field under differing soil moisture regimes. *Environmental Toxicology and Chemistry* 25: 604-612
5. Bahrndorff S, Holmstrup M, Petersen H, Loeschcke V (2006) Geographic variation for climatic stress resistance traits in the springtail *Orchesella cincta*. *Journal of Insect Physiology* 52:951-959
6. Mikkelsen, T.N.; Beier, C.; Jonasson, S.; Holmstrup, M.; Schmidt, I.K.; Ambus, P.; Pilegaard, K.; Michelsen, A.; Albert, K.; Andresen, L.C.; Arndal, M.F.; Bruun, N.; Christensen, S.; Danbæk, S.; Gundersen, P.; Jørgensen, P.; Kongstad, J.; Maraldo, K.; Priemé, A.; Riis-Nielsen, T.; Ro-Poulsen, H.; Stevnbak, K.; Selsted, M.B.; Sørensen, P.; Larsen, K.S.; Carter, M.S.; Martinussen, T.; Miglietta, F. and Sverdrup, H. (2008) Experimental design of multifactor climate change experiments with elevated CO₂, warming and drought – the CLIMAITE project. *Functional Ecology*, 22, 185-195.
7. Holmstrup M, Maraldo K, Krogh PH (2007) Combined effect of copper and prolonged summer drought on soil Microarthropods in the field. *Environmental Pollution* 146: 525-533
8. Peñuelas J, Prieto P, Beier C, Cesaraccio C, De Angelis P, de Dato G, Emmett BA, Estiarte M, Gorissen T, Garadnai J, Láng EK, Kröel-Dulay G, Llorens L, Pellizzaro P, Riis-Nielsen T, Schmidt IK, Sirca C, Sowerby A, Spano D, and Tietema A. (2007) Response of plant species richness and primary productivity in shrublands along a north-south gradient in Europe to seven years of experimental warming and drought: reductions in primary

- productivity in the heat and drought year of 2003. *Global Change Biology* 13(12), 2563-2581
9. Cornelissen, J.H.C., Bodegom, P.M. van, Aerts, R. Gallagher, T.V., Logtestijn, R.S.P. van, Alatalo, J., Chapin, F.S., Gerdol, R., Gudmundsson, J. Gwynn-Jones, D., Hartley, A.E., Hik, D.S., Hofgaard, A., Jonsdottir, I.S., Karlsson, S., Klein, J.A., Laundre, J., Magnusson, B., Michelsen, A., Molau, U., Onipchenko, V.G., Qested, H.M., Sandvik, S.M., Schmidt, I.K., Shaver, G.R. Solheim, B., Soudzilovskaia, N.A., Stenstrom, A., Tolvanen, A., Totland, O., Wada, N., Welker, J.M. Zhao, X., and Team, M.O.L. (2007) Global negative vegetation feedback to climate warming responses of leaf litter decomposition rates in cold biomes. *Ecology Letters* 10: 619-627.
 10. M.A. Sutton, E. Nemitz, J.W. Erisman, C. Beier, K. Butterbach Bahl, P. Cellier, W. de Vries, F. Cotrufo, U. Skiba, C. Di Marco, S. Jones, P. Laville, J.F. Soussana, B. Loubet, M. Twigg, D. Famulari, J. Whitehead, M.W. Gallagher, A. Neftel, C.R. Flechard, B. Herrmann, P.L. Calanca, M.E. Mattsson, J.K. Schjoerring, U. Daemmgen, L. Horvath, Y.S. Tang, B.A. Emmett, A. Tietema, J. Peñuelas, M. Kesik, C. Campbell, J.E. Olesen, U. Dragosits, M.R. Theobald, P. Levy, D. Mobbs, R. Milne, M. Reido, N. Viovy, N. Vuichard, J.U. Smith, P. Smith, P. Bergamaschi, J. Muller and D. Fowler (2007) Challenges in quantifying biosphere-atmosphere exchange of nitrogen species. *Environmental Pollution*, 150, 125-139.
 11. Estiarte M, Penuelas J, Sardans J, Emmett BA, Sowerby A, Beier C, Schmidt IK, Tietema A, Van Meeteren MJM, Lang EK, Mathe P, De Angelis P, De Dato G (2008) Root-surface phosphatase activities in shrublands across an European gradient: effects of warming. *Journal of Environmental Biology* 29 (1), 25-29
 12. Gerten, D.; Luo, Y.; le Maire, G.; Parton, W.J.; Keough, C.; Weng, E.; Beier, C.; Ciais, P. Cramer, W.; Dukes, J.S.; Hanson, P.J.; Knapp, A.; Linder, S.; Nepstad, D. Rustad, L. and Sowerby, A. (2008) Modelled effects of precipitation on ecosystem carbon and water dynamics in different climatic zones. *Global Change Biology*, 14, 1-15.
 13. Luo, Y.; Gerten, D.; Maire, G.L.; Parton, W.J.; Weng, E.; Zhou, X.; Keough, C. Beier, C.; Ciais, P. Cramer, W.; Dukes, J.S.; Emmett, B.; Hanson, P.J.; Knapp, A.; Linder, S.; Nepstad, D. and Rustad, L. (2008) Modelled interactive effects of precipitation, temperature and [CO₂] on ecosystem carbon and water dynamics in different climatic zones. *Global Change Biology*, 14, 1986-1999
 14. Knapp, A.; Beier, C.; Briske, D.; Classen, A.T.; Luo, Y.; Reichstein, M.; Smith, M.; Smith, S.D.; Bell, J.E.; Heisler, J.L.; Leavitt, S.W.; Sherry, R.S.; Smith, B.; Weltzin, J.; Weng, E. and Yarie, J. (2008) Consequences of altered precipitation regimes for terrestrial ecosystems. *BioScience*, 58, 1-11.
 15. Ainsworth, E.A.; Beier, C.; Calfapietra, C.; Ceulemans, R.; Durand-Tardif, M.; Godbold, D.L.; Hendrey, G.R.; Hickler, T.; Kaduk, J.; Karnosky, D.F.; Kimball, B.A.; Körner, C.; Koornneef, M.; Lafarge, T.; Leakey, A.D.B.; Lewin, K.F.; Long, S.P.; Manderscheid, R.; McNeil, D.L.; Mies, T.A.; Miglietta, F.; Morgan, J.A.; Nagy, J.; Norby, R.J.; Norton, R.M.; Percy, K.E.; Rogers, A.; Soussana, J.-F.; Stitt, M.; Weigel, H.-J. and White, J.W. (2008) Next generation of elevated [CO₂] experiments with crops: A critical investment for feeding the future world. *Plant Cell & Environment*, 31, 1317-1324.
 16. Maraldo K, Schmidt IK, Beier C, Holmstrup M (2008) Can field populations of the enchytraeid, *Cognettia sphagnetorum*, adapt to increased drought stress? *Soil Biology and Biochemistry* 40: 1765-1771

17. Maraldo K, Ravn HW, Slotsbo S, Holmstrup M (2009) Responses to acute and chronic desiccation stress in *Enchytraeus* (Oligochaeta: Enchytraeidae). *Journal of Comparative Physiology B* 179: 113-123
18. Bahrndorff S, Tunnaclyffe A, Wise MJ, McGee B, Holmstrup M, Loeschcke V (2009) Bioinformatics and protein expression analyses implicate LEA proteins in the drought response of Collembola. *Journal of Insect Physiology* 55: 210-217
19. Bahrndorff S, Loeschcke V, Pertoldi C, Beier C, Holmstrup M (2009) The rapid cold hardening response of Collembola is influenced by thermal variability of the habitat. *Functional Ecology* 23: 340-347
20. Damgaard C, Riis-Nielsen T, Schmidt IK. (2009) Estimating plant competition coefficients and predicting community dynamics from non-destructive pin-point data: a case study of *Calluna vulgaris* and *Deschampsia flexuosa*. *Plant Ecol* 201:687-697.
21. Prieto, P.; Peñuelas, J.; Niinemets, Ü.; Ogaya, R.; Schmidt, I.K.; Beier, C.; Tietema, A.; Sowerby, A.; Emmett, B.A.; Kovács Láng, E.; Kröel-Dulay, G.; Barbara Lhotsky, B.; Cesaraccio, C.; Pellizzaro, G.; de Dato, G.; Sirca, C. and Estiarte, M. (2009) Changes in the onset of spring growth in shrubland species spring growth in response to experimental warming along a north-south gradient in Europe. *Global Ecology and Biogeography*, 18, 473-484.
22. Giovanbattista Domenico de Dato, Paolo De Angelis, Costantino Sirca and Claus Beier (2010) Impact of drought and increasing temperatures on soil CO₂ emissions in a Mediterranean shrubland (gariga). *Plant and Soil*, 327, 153-166
23. Pille Mänd, Lea Hallik, Josep Peñuelas, Tiit Nilson, Pierpaolo Duce, Bridget A. Emmett, Claus Beier, Marc Estiarte, János Garadnai, Tibor Kalapos, Inger Kappel Schmidt, Edit Kovács-Láng, Patricia Prieto, Albert Tietema, Joke W. Westerveld, Olevi Kull (2010) Responses of the reflectance indices PRI and NDVI to experimental warming and drought in European shrublands along a north–south climatic gradient. *Remote Sensing of Environment*, 114, 626–636.
24. Beier, C.; Emmett, B.A.; Tietema, A.; Schmidt, I.K.; Peñuelas, J.; Láng, E.K.; Duce, P.; de Angelis, P.; Gorissen, A.; Estiarte, M.; de Dato, G.D.; Sowerby, A.; Kröel-Dulay, G.; Lellei-Kovács, E.; Kull, O.; Mand, P.; Petersen, H.; Gjelstrup, P. and Spano, D. (2009) Carbon and nitrogen balances for 6 shrublands across Europe. *Global Biogeochemical cycles*. 23, GB4008, doi:10.1029/2008GB003381
25. Calfapietra, C.; Ainsworth, E.A.; Beier, C.; De Angelis, P.; Ellsworth, D.S.; Godbold, D.L.; Hendrey, G.R.; Hickler, T.; Hoosbeek, M.R.; Karnosky, D.F.; King, J.; Körner, C.; Leakey, A.D.B.; Lewin, K.F.; Liberloo, M.; Long, S.P.; Lukac, M.; Matyssek, R.; Miglietta, F.; Nagy, J.; Norby, R.J.; Oren, R.; Percy, K.E.; Rogers, A.; Mugnozza, G.S.; Stitt, M.; Taylor, G. and Ceulemans, R. (in press) Challenges in elevated CO₂ experiments on forests. *Trends in Plant Science*, 15, 5-10.
26. Andresen, L.C.; Michelsen, A.; Jonasson, S.; Beier, C. and Ambus, P. (2009) Glycine uptake in heath plants and soil microbes responds to elevated temperature, CO₂ and drought. *Acta Oecologia*, 35, 786-796.
27. Andresen, L.C.; Michelsen, A.; Jonasson, S.; Schmidt, I.K.; Mikkelsen, T.N.; Ambus, P. and Beier, C. (2010) Plant nutrient mobilization in temperate heathland responds to elevated CO₂, temperature and drought. *Plant & Soil*, 328, 381-396.
<http://dx.doi.org/10.1007/s11104-009-0118-7>
28. Maraldo K, Holmstrup M (2009) Recovery of enchytraeid populations after severe drought events. *Applied Soil Ecology*, 42, 227-235.
29. Maraldo K, Holmstrup M (2010) Enchytraeids in a changing climate: A mini-review.

- Pedobiologia 53, 161-167.
30. Andresen, L.C.; A. Michelsen; P. Ambus; C. Beier. (2010) Belowground heathland responses after two years of combined warming, elevated CO₂ and summer drought. *Biogeochemistry*, 101(1-3):27-42 DOI 10.1007/s10533-010-9489-3.
 31. Luo, Y.; Melillo, J.; Niu, S.; Beier, C.; Clark, J.; Classen, A.; Davidson, E.; Dukes, J.S.; Evans, R.D.; Field, C.; Czimczik, C.I.; Keller, M.; Kimball, B.A.; Kueppers, L.; Norby, R.; Pelini, S.L.; Pendall, E.; Rastetter, E.; Six, J.; Smith, M.; Tjoelker, M. and Torn, M. (In press). Coordinated Approaches to Quantify Long-Term Ecosystem dynamics in Response to Global Change. *Global Change Biology*.
 32. Christensen S., Bjørnlund L., Vestergård M. (In press) Decomposer biomass in the rhizosphere to assess rhizodeposition. *Oikos*.
 33. Selsted, Merete Bang, Per Ambus, Anders Michelsen, Leon van der Linden, Klaus Steenberg Larsen, Kim Pilegaard, Teis N Mikkelsen and Claus Beier. (2011). Measurement of carbon dioxide fluxes in a free-air carbon dioxide enrichment experiment using the closed flux chamber technique. *Atmospheric Environment*, 45, 208-214.
 34. Larsen, K.S.; Andresen, L.C.; Beier, C.; Jonasson, C.; Albert, K.R.; Ambus, P.; Andersen, K.S.; Arndal, M.F.; Carter, M.S.; Christensen, S.; Holmstrup, M.; Ibrom, A.; Kongstad, J.; Linden, L. v.d.; Maraldo, K.; Michelsen, A.; Mikkelsen, T.N.; Pilegaard, K.; Priemé, A.; Ro-Poulsen, H.; Schmidt, I.K.; Selsted, M.B. (2011) Reduced N cycling in response to drought, warming, and elevated CO₂ in a Danish heathland: Synthesizing results of the CLIMAITE project after two years of treatments. *Global Change Biology*, 17, 1884-1899.
 35. Andresen, L.C.; Konestabo, H.S.; Maraldo, K.; Holmstrup, M.; Ambus, P.; Beier, C. and Michelsen, A. (In press) Stable isotope analysis of the organic matter flow in the food web at a temperate heath under multifactorial climate change. *Rapid Communications in Mass Spectrometry*. *In press*
 36. Waagner, D.; Bayley, M. and Holmstrup, M. (2011) Recovery of reproduction after drought in the soil living *Folsomia candida* (Collembola). *Soil Biology & Biochemistry* 43, 690-692.
 37. Maraldo, K.; Christensen, B. And Holmstrup, M. (2011) The excretion of ammonium by enchytraeids (*Cognettia sphagnetorum*). *Soil Biology & Biochemistry*. 43, 991-996.
 38. Waagner, D.; Heckmann, L.-H.; Malmendal, A.; Nielsen, N.C.; Holmstrup, M. and Bayley, M. (2010) *Hsp70* expression and metabolite composition in response to short-term thermal changes in *Folsomia candida* (Collembola). *Comparative Biochemistry and Physiology A* 157, 177-183.
 39. Nielsen, P.L. ; Andresen, L.C.; Michelsen, A.; Schmidt, I.K. and Kongstad, J. (2009). Seasonal variations and effects of nutrient applications on N and P and microbial biomass under two temperate heathland plants. *Applied Soil Ecology*, 42(3):279-287.
 40. Maraldo, K.; Krogh, P.H.; Linden, L.G., Christensen, B., Mikkelsen, T.N.; Beier, C. and Holmstrup, M. (2010) The counteracting effects of elevated air CO₂ concentrations and drought episodes: studies of enchytraeid populations in dry heathland. *Soil Biology and Biochemistry* 42, 1958-1966
 41. Leuzinger S, Luo Y, Beier C, Dieleman W, Vicca S, Körner C (2011) Do global change experiments overestimate impacts on terrestrial ecosystems? *Trends in Ecology and Evolution*, 26:236-241
 42. Haugwitz M.S.,; Michelsen, A. and Schmidt, I.K. (2011) Long-term microbial control of nutrient availability and plant biomass in a subarctic-alpine heath after addition of

- carbon, fertilizer and fungicide. *Soil Biology and Biochemistry* 43, 179-187
<http://dx.doi.org/10.1016/j.soilbio.2010.09.032>
43. Kongstad, J., Schmidt, I.K.; Riis-Nielsen, T.; Beier, C.; Arndal, M.F. and Mikkelsen, T.N. (submitted) Species specific responses in plant growth to changes in temperature, drought and CO₂ in combination: results from the CLIMAITE experiment. *Global Change Biology*. (march 2010).
 44. Selsted, M. B.; Ibrom, A.; Ambus, P.; Michelsen, A.; Larsen, K.S.; Linden, L.G.; Pedersen, J.K.; Mikkelsen, T.N.; Pilegaard, K. and Beier, C. (under revision). Soil respiration in a temperate heathland responds strongly to elevated temperature, extended summer drought and elevated CO₂. *Global Change Biology*, (May 2011).
 45. Gladbach, D.; Stevnbak, K.; Christensen, S.; Mikkelsen, T.N.; Tscharnkte, T.; Beier, C.; Scherber, C. (Submitted). Effects of warming, drought and elevated CO₂ on performance of an insect herbivore in heathland. *Global Change Biology*. (May 2010)
 46. Carter, M.S., Ambus, P., Albert, K., Larsen, K.S., Andersson, M., Priemé, A.; Van der Linden, L. and Beier, C. (2011) Effects of elevated atmospheric CO₂, prolonged summer drought and temperature increase on N₂O and CH₄ fluxes in a temperate heathland, *Soil Biol. Biochem.* In press.
 47. Stevnbak, K.; Maraldo, K.; Georgieva, S.; Bjørnlund, L.; Beier, C.; Schmidt, I.K. and Christensen, S. (Submitted) Soil decomposers are harmed and long-lived plant feeding nematodes enhanced in a temperate region soil by global change. *Global Change Biology*. (June 2010).
 48. Albert K.R., Kongstad J., Schmidt I.K., Ro-Poulsen H., Mikkelsen T.N., Michelsen A., Beier C. (2010b) Contrasting evergreen shrub vs. grass growth strategies, but similar eco-physiological responses to dry conditions in a temperate heath. *Acta Oecologia*. (invited resubmission April 2011)
 49. Albert KR., Mikkelsen T.N., Michelsen A., Ro-Poulsen H., Linden L. (2011) Interactive effects of drought, elevated CO₂ and warming on photosynthetic capacity and photosystem performance in temperate heath plants *Journal of Plant Physiology*. *in press*
 50. Albert KR., Ro-Poulsen H., Mikkelsen T.N., Michelsen A., Beier C., Linden L. (2011) Interactive effects of elevated CO₂, warming and drought on photosynthesis of *Deschampsia flexuosa* in a temperate heath ecosystem. *Journal of Experimental Botany*. *in press*
 51. Albert KR., Ro-Poulsen H., Mikkelsen T.N., Michelsen A., Linden L., Beier C. (2011) Effects of elevated CO₂, warming and drought episodes on plant carbon uptake in a temperate heath ecosystem are controlled by soil water status. *Plant, Cell and Environment*. *In press*.

List of publications to be submitted in 2011

52. Linden, L.G. et al. Effects of climate change on carbon cycling in a heathland – experimental evidence from the full factorial CO₂, warming and drought experiment CLIMAITE. *Global Change Biology*. Submission summer 2011.
53. Stevnbak K, Gladbach D, Scherber C, Mikkelsen TN, Beier C, Christensen S (in prep) Grasshoppers eat less at future CO₂ but stimulate belowground activity more due to relieved N-limitation. Submission summer 2011
54. Tietema A, Schmidt IK, Ambus P, Beier C. (in prep) Effects of warming and drought on

- carbon and nitrogen cycling in a Danish heathland. Submission medio 2010 Global Change Biology. Submission Autumn 2011
55. Waagner D, Bayley M, Mariën , Holmstrup M, Ellers J, Roelofs D (submitted, april 2011) Ecological and molecular consequences of prolonged mild and severe drought in *Folsomia candida*
 56. Kongstad J, Schmidt I.K. (in prep) Allocation to reproductive structures in response to climate change. Submission Summer 2011
 57. Arndal, MF, Schmidt IK, et al. (in prep) Root dynamics under future climate conditions in a mixed heathland-grassland. Submission fall 2011
 58. Arndal, MF, Schmidt IK, Michelsen A, Beier C. (manus) Root 15N uptake in two heath plants under drought, elevated CO₂ and temperature. Submission summer 2011
 59. Riis-Nielsen T, Schmidt IK (in prep) Non-destructive plant biomass and cover estimates from point intercept analysis - a case study of *Calluna vulgaris* and *Deschampsia flexuosa*. Submission summer 2011.
 60. Schmidt IK, Riis-Nielsen T, Kongstad J, Beier C, Ransijn J, Damgaard C. (manus) Regeneration of *Calluna vulgaris* in response to long-term drought and warming. Submission summer 2011.
 61. Beier, C.; Beierkuhle, C.; Wohlgemuth, T.; Penuelas, P.; Körner, C.; Leuzinger, S. (in prep). Next generation of precipitation manipulation experiments – challenges and recommendations. Submission Summer 2011.
 62. Selsted, M.B. (in prep) Net ecosystem CO₂ exchange in a heathland exposed to future climatic conditions. Submission Summer 2011.
 63. Andresen, L.C. Emmett, B. Schmidt, I.K. Beier, C. Tietema, A. Kroel-Dulay, G. De Angelis, P. Estiarte, M. Peñuelas, J. and Duce, P. (in prep) Mineralization and litterdecomposition in heathland and grassland ecosystems during climate change across a European moisture and temperature gradient.

Danish publications with referee

1. Beier, C.; Mikkelsen, T.N.; Michelsen, A.; Holmstrup, M.; Schmidt, I.K. and CLIMAITE (2007) CLIMAITE – manipulation med klimaet, Jord og Vand; 14, 71-74.
2. Schmidt IK, C Beier, J Kongstad, L Andresen, A Michelsen, K Albert, P Ambus, M Selsted, K Maraldo, M Holmstrup, M Arndal, TN. Mikkelsen, H Ro-Poulsen, S Jonassen, R Juelsborg Karsten. 2008. Klimaændringer og processer og funktion i terrestriske økosystemer. Flora og Fauna 113(4): 113-124. Århus 2008

Other publications

Schmidt IK, Beier C, Kongstad J, Andresen L, Michelsen A, Albert K, Ambus P, Selsted M, Maraldo K, Holmstrup M, Arndal M, Mikkelsen TN, Ro-Poulsen H, Jonasson S, Karsten RJ. 2007. Klimaændringer, processer og funktion i terrestriske økosystemer. *Flora og Fauna* 113(4) 121-132.

Schmidt IK. 2008. Jordbund, klima og fremtidens natur. I: Dam M et al. *Wilhelm+6 Naturen og dens forvaltning i lyset af klimaforandringerne* p63-72. www.dn-ku.dk

NN (2008) Danske planter tilpasser sig. *Dynamo*, Technical University of Denmark, 28-31

Beier, C.; Mikkelsen, T.; Holmstrup, M.; Schmidt, I.K.; Michelsen, A. and CLIMAITE (2007) CLIMAITE – manipulation med klimaet (In Danish). *Jord & Vand*, 2, 71-74.

Beier, C. (2006) Klimaforandringer vil ændre nedbøren (In Danish). *Politiken*, Sunday 12/10 - 2006 .

Beier, C. (ed.) (2006) *Eprecot – Effects of precipitation changes on terrestrial ecosystems*. Brochure for policy makers based on findings from the Eprecot workshop, May 2006, 12 pp.

Beier, C. and Jonasson, S. (2005) Et glimt af fremtiden (In Danish). *Villum Kann Rasmussen årsskrift*. P. 5-11.

Andersen, K. (2005) Tidsmaskine skal afsløre klimaeffekter (in Danish). *MiljøDanmark*, 6, p. 8-9.

Ryde, M (2004) Forskningen skal ud - og ses. Artikel om CLIMAITE og formidling. (in Danish). *Riposten*, 4, 14-15.

Andresen, L. C. & Michelsen, A. (2004) Optager hedeplanter kvælstof om vinteren, og vokser de? (In Danish) *URT* 28 4; 122 - 125.

Oral presentations

2011

Andresen, L.A. 2011. Fremtidens klima. Forskningens døgn 2011. Brorfelde astronomiske center. 30. April 2011.

Larsen, K.S. (2011) Reduced N cycling in response to elevated CO₂, warming, and drought in a Danish heathland. Oral presentation at Nitrogen and Global Change: Key Findings – Future Challenges, Edinburgh, April 2011.

Beier, C. (2011) Climate change impacts on C and N cycling and terrestrial ecosystem feedbacks – results from the CLIMAITE experiment. Oral presentation at Nitrogen and Global Change: Key Findings – Future Challenges, Edinburgh, April 2011.

Carter, M.S. (2011) Synthesizing greenhouse gas fluxes across nine NitroEurope heathlands and peatlands – responses to future climatic and environmental changes. Oral presentation at Nitrogen and Global Change: Key Findings – Future Challenges, Edinburgh, April 2011.

Ibrom, A. (2011) Interaction between Nitrogen and Carbon cycling at four NitroEurope forest supersites. Oral presentation at Nitrogen and Global Change: Key Findings – Future Challenges, Edinburgh, April 2011.

A. Michelsen, H. Ro-Poulsen, S. Christensen: The Climaite project. Department of Biology Seminar, örenäs, Sweden, 3 March 2011

Teis N. Mikkelsen: National global change research initiative: Climaite. Geografisk Institut, Copenhagen Universitet. (January 2011).

Schmidt, I.K. (2010) Impact of climate change on plant communities. 1st CHANCE Day. Copenhagen 18 March 2011.

2010

Beier, C.; Larsen, K.S.; Linden, L.G. Ibrom, A.; Andresen, L.; Albert, K.; Maraldo, K.; Pedersen, J.K. and Schmidt, I.K. (2010) Drought effects on ecosystem functioning and interactions with CO₂ and warming - results from CLIMAITE. EGU – General Assembly 2010, Vienna, April 2010.

Beier, C. (2010) Experimental studies of climate change effects in natural ecosystems - DK, global and future collaboration. University of Dar es Salaam, 29th January 2010.

1st INCREASE Cross-site comparison workshop, Synthesis of long-term data series from European climate change experiments. Hungary 20-23 Sept. 2010, Schmidt, Larsen, Linden, Beier.

Beier, C. (2010) Ecosystem modelling and air pollution interactions. 11th Joint Expert group meeting, Sitges, Spain, 27-29th October 2010.

Beier, C. (2010) CLIMAITE eksperimentets perspektiver for udviklingen i Danmark. Fra eksperiment til økosystemforandringer. Global Change Annual meeting, Copenhagen, 12th November 2010.

Ambus, P. 2010 Heathland ecosystem CO₂ fluxes in response to climatic and atmospheric changes. NORDFLUX Workshop *Ecosystem Disturbance and GHG Exchange in the Nordic Region*, Iceland, September 8-9, 2010

Carter, M.S. 2010 Effects of elevated atmospheric CO₂, prolonged summer drought and temperature increase on N₂O and CH₄ fluxes in a temperate heathland. NORDFLUX Workshop *Ecosystem Disturbance and GHG Exchange in the Nordic Region*, Iceland, September 8-9, 2010

Beier, C. (2010) Vulnerability assessment of shrubland ecosystems in Europe under climatic changes – Big questions. Oral presentation at 1st INCREASE Cross-site comparison workshop. Hungary 20-23 Sept. 2010

2009

Michelsen, A. 2009. The use of stable isotopes (¹⁵N and ¹³C) in ecology. Isotopes in Earth System Science workshop, Niels Bohr Institute, Copenhagen, 29 June 2009

Michelsen, A. 2009 : The Climaite project. Formidling af biologisk klimaforskning til gymnasieklasse, Rødovre Gymnasium 30 March 2009

Ambus, P. 2009 Climate controls on gas- and water mediated losses of N from a terrestrial ecosystem. NeU Workshop on Landscape flows and transformations of nitrogen. Foulum, April 28, DK.

Schmidt IK, Beier C et al. 2009. Climate change studies in large scale experiments in vulnerable ecosystems across Europe. The 11th European Heathland Workshop, Cornwall, UK, 13th-18th September 2009.

Kongstad J, Schmidt IK (2009) Flowering responses of *D. flexuosa* to climate change manipulations. The 11th European Heathland Workshop, Cornwall, UK, 13th-18th September 2009.

Kongstad J (2009) Betydning af klimaændringer. Hedernes økologi og pleje. Københavns Universitet 2. November 2009.

Scherber C, Gladbach D (2009) Climate change effects on growth and survival of herbivorous insects. Workshop. Hedernes økologi og pleje. Københavns Universitet 2. November 2009.

Larsen, K.S., Beier, C., Linden, L.G., Ibrom, A., Andresen, L., Albert, K., Maraldo, K., Pedersen, J.K., Schmidt, I.K. (2009) *Climaite – Consequences of multifactor climate change on the carbon and nitrogen cycles*. Oral presentation (invited speaker) at the *Biogeomon* conference, Helsinki, Finland, 29 June-3 July.

Ambus, P. et al. (2009) Climate controls on gas- and water mediated losses of N from a terrestrial ecosystem. Invited presentation at NeU Workshop on Landscape flows and transformations of nitrogen. Foulum, April 28.

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Andresen LC, Michelsen A., Jonasson, SE ; Beier C, Ambus P (2009). Nitrogen uptake in temperate heath vegetation and soil microbes is influenced by elevated temperature, CO₂ and drought. Oral Presentation at the BIOGEOMON 2009 conference, Finland Helsinki, Finland, 29. June 2009 - 3. July 2009

Ro-Poulsen H, Albert K, Michelsen A, Mikkelsen TN, Beier C. (2009) Unpredictable responses to interactions between climatic drivers: Impact of warming, elevated CO₂, drought and their combinations on photosynthesis and growth patterns of heath plants. 6th International Symposium on Ecosystem Behaviour BIOGEOMON 2009, Helsinki, Finland, 29. June 2009 - 3. July 2009

M. Holmstrup (2009) Recovery of enchytraeid populations after severe drought events. ISEPEP III, Tsukuba, Japan, 22-26 August, 2009

M. Holmstrup (2009) Manipulations of CO₂, temperature and precipitation in the field: a multifactorial field experiment in a Danish heath ecosystem. Beyond Kyoto. Addressing the challenges of climate change, Aarhus University, March 6-8, 2009

D. J. Gladbach, C. Scherber, K. Stevnbak, S. Christensen, T. Tschardtke, T. Nørgaard Mikkelsen & C. Beier (2009) Effects of climate change on aboveground trophic interactions; Poster presentation, German Society of General and Applied Entomology (DGAAE), March 16-19, 2009

Teis N. Mikkelsen: The Climaite project. Nordsjællands gymnasium (NGG) upper secondary school (Nov. 09)

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Kongstad J (2009) Betydning af klimaændringer. Hedernes økologi og pleje. Københavns Universitet 2. November 2009.

Arndal MF. 2009. Oral presentation of the CLIMAITE project during lab meeting at Penn State University, Root Ecology Lab. USA. Nov.2009.

Arndal, Marie; Inger Kappel Schmidt; claus Beier. Root dynamics and nutrient uptake during future climate change. Poster præsenteret ved Biogeomon konference i Helsinki, Finland, juni 2009

Klaus S. Larsen, Claus Beier, Leon G. Linden, Andreas Ibrom, Louise Andresen, Kristian Albert, Kristine Maraldo, Jane K. Pedersen ,Inger K. Schmidt (2009) CLIMAITE – consequences of multifactor climate change on the carbon and nitrogen cycles. 6th International Symposium on Ecosystem Behavior BIOGEOMON 2009, Helsinki, Finland, 29 June – 3 July 2009. Invited presentation.

Beier, C. (2009) Extreme events ecology – new frontiers. Presentaion at 39th annual conference of the Ecological Society of Germany, Austria and Switzerland in BAYREUTH 14-18th September. Session co-chair talk.

Beier, C. (2009) Climate change manipulation experiments in Terrestrial ecosystems. Presented at “International Ecosystems & Precipitation Change Meta-Analysis Workshop” at Biosphere2, Oracle, Arizona, USA, October 12-16, 2009.

Beier, C. (2009) Synthesis of world wide meta-analysis related to water responses in terrestrial ecosystems. Presented at the CLIMMANI workshop “Climate change, effects on water availability and terrestrial ecosystem responses” in Basel 21-23rd - 2009.

Beier, C. (2009) Ecosystem function and multifactor interactions: An experimental approach. Presentation at “ANAEE final Open Meeting” in Exeter, UK, 24-25th November 2009.

Ambus, P. 2009 Soil carbon stocks: Changes in relationship to global change factors and soil management strategies. Workshop on Changes in Marine and Terrestrial Productivity under Climate Change – Impact and Feedback. Technical University of Denmark, Risø, 12-13 May, DK

Ambus, P. 2009 Climate controls on gas- and water mediated losses of N from a terrestrial ecosystem. NeU Workshop on Landscape flows and transformations of nitrogen. Foulum, April 28, DK. Invited presentation

Beier, C., 2009. Den danske natur i 2075 – når klimaet ændrer sig - Nye metoder til vurdering af klimaeffekter. Presentation at Technical University of Denmark, Alumneday, 21st August, 2009.

Selsted, Merete Bang ; Albert, Kristian Rost ; Ambus, Per ; Michelsen, A. ; Ro-Poulsen, H. ; Mikkelsen, Teis Nørgaard ; Ibrom, Andreas, 2009 Ecosystem recovery after drought events in our future climate. Type: Conference contribution (poster and abstract) Presented at: International scientific congress on climate change, Climate change: Global risks, challenges and decisions, 2009, Copenhagen (DK), 10-12 Mar

Selsted, Merete Bang ; Albert, Kristian Rost ; Ambus, Per ; Michelsen, A. ; Ro-Poulsen, H. ; Mikkelsen, Teis Nørgaard ; Ibrom, Andreas, 2009. Responses of carbon and water fluxes following drought events in combinations with warming and elevated CO₂ Type: Conference contribution (posters and abstract). Presented at: 6th International Symposium on Ecosystem Behavior BIOGEOMON 2009, 2009, Helsinki (FI), 29 Jun - 3 Jul

Andresen, L.C., Michelsen, A., Jonasson, S., Beier, C. and Ambus, P. 2009 Climate change alters nutrient cycling. Nitrogen uptake in temperate heath vegetation and soil microbes is influenced by elevated temperature, CO₂ and drought. International Scientific Congress on Climate Change, Copenhagen, 10-12 March.

L. C. Andresen, A. Michelsen, P. Ambus and C. Beier. June 29 to July 3 2009: 'Belowground heathland responses after two years of combined warming, elevated CO₂ and summer drought' BIOGEOMON, University of Helsinki, Finland.

L.C.Andresen et al. 2010 'Organic matter flow in the food web at a temperate heath under multifactorial climate change' SIMSUNG, University of Exeter 27. to 30. April.

2008

Albert K, Mikkelsen TN, Ro-Poulsen, H. 2008. Future photosynthetic performance of heath plants – results from the multi-factorial ecosystem experiment, CLIMAITE : 5th SPPS 2008 PhD conference January 24-27 2008 in Haslev, Denmark

Albert K, Mikkelsen T, Ro-Poulsen H, Michelsen A. Plant eco-physiological response patterns to summer drought, elevated CO₂ and warming in a natural temperate heath ecosystem. Ecological Society of America, 93rd ESA annual meeting August 3-8, Milwaukee, Wisconsin. August 2008

Albert K, Mikkelsen T, Ro-Poulsen H, Michelsen A. Plant eco-physiological response patterns to summer drought, elevated CO₂ and warming in a natural temperate heath ecosystem. Nordic Photosynthetic Congress, 21-24 October 2008, Faculty of Life Sciences, University of Copenhagen, Denmark, Copenhagen, Denmark, 21-24 Oct 2008

Maraldo (2008) Can field populations of the enchytraeid, *Cognettia sphagnetorum*, adapt to increased drought stress? Oral presentation at the 8th Meeting of the Aarhus Stress Group. 10. September 2008

Maraldo, "Ecophysiological and ecological responses of enchytraeids exposed to climate change", PhD workshop "Organic matter in soil; pools and processes" held by University of Copenhagen, June 2008

Maraldo, "Ecophysiological and ecological responses of enchytraeids exposed to climate change" presentation of PhD-project at the University of Vigo, Spain, 14 January 2008

Beier, C. (2008) Climate change experiments and dynamic ecosystem modelling. Presentation at the ANAEE workshop, Paris, 2-4 September, 2008

Beier, C. (2008) Klima , biologi og kulstof - når klimaet ændrer sig. Presentation at "Forskningens døgn", Lyngby, 26th April 2008.

Pedersen, J.K. (2008) 'CLIMAITE - a Danish FACE experiment. Responses of Plant Communities to Climate Change'. UTAS, Tasmania 29 of February 2008.

Larsen , K.S.; Ambus, P.; Carter, M.S.; Priemé, A.; Albert, K.; Andersson, M., Beier, C. Denitrification and N₂O losses in a heathland under changing climate conditions. Presentation at NitroEurope General Assembly, Ghent, February 2008.

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Beier, C. (2008) Climate change experiments. ANAEE design study, meeting in Paris, 1-4 September 2008.

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Helge Ro-Poulsen, Kristian Rost Albert, Teis N. Mikkelsen, Anders Michelsen (2008). Plant eco-physiological response patterns to summer drought, elevated CO₂ and warming in a semi-natural temperate heath ecosystem. 9th Nordic Photosynthetic Congress 21-24 October 2008, LIFE Faculty, University of Copenhagen.

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Ambus, P., Carter, M.S., Albert, K., Larsen, K.S., Andersson, M., Priemé, A., Mikkelsen, T. and Beier, C. 2008 Effects of climatic perturbations on greenhouse gas emissions in a temperate shrub land. Invited presentation at University of Hohenheim, Stuttgart, Germany, 2. June. Unpublished

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L.C. Andresen 2008 Ph.D. defence. 'Nitrogen cycling in heathland ecosystems and effects of climate change'.

P. Ambus, M.S. Carter, K.S. Larsen, A. Priemé, K.R. Albert, M. Andersson and C. Beier. Denitrification and N₂O losses in a heathland under changing climate conditions. Oral presentation at NitroEurope IP 3rd General Assembly, Ghent, 18-22 February 2008.

Selsted, Merete Bang and Per Ambus 2008 Soil-atmosphere exchange of carbon in a heath land under future climatic conditions. Poster presented at the Marie Curie iLeaps conference, Hyères France, 17-20 November 2008

L.C.Andresen 2008. Temperate heath plant biomass, root and soil microbial acquisition of organic nitrogen is influenced by elevated temperature, CO₂ and drought.

Anders Michelsen, Helge Ro-Poulsen, Søren Christensen, Karen Andersen. 1. Feb 2008. Climaite - a large scale research project evaluating effects of climate change on biological processes. Presentations for high school teachers. Climaite site / Department of Biology, University of Copenhagen.

Anders Michelsen. 6 March 2008. Effects of climate change on plants and ecosystems - experiments in Greenland, N. Sweden and Denmark. / Presentation at "Dansk Botanisk Forening"s meeting. Department of Biology, University of Copenhagen.

L.C. Andresen, 2008 seminar at Terrestrial ecology section, University of Copenhagen.
Kongstad J. 2008. Climaite. Oral presentation. Tasmania

2007

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Kristian Rost Albert, Helge Ro-Poulsen, Teis N. Mikkelsen and Anders Michelsen. Plant eco-physiological response patterns to summer drought, elevated CO₂ and warming in a semi-natural temperate heath ecosystem. The Ecological Society of America, 93rd Annual Meeting. Oral presentation and abstract. Milwaukee, Wisconsin, August 3-8, 2008.

Linden, L.G.; Beier, C.; Belyazid, S. and Sverdrup, H. (2007) Simulating a heathland ecosystem under climate change scenarios with ForSAFE-VEG. Presentation at COGCI PhD school, June 2007.

Carter, M.S. (2007) Brandbjerg – a Danish heathland site. Oral presentation at NEU model workshop, 21-23 March, Dragør, DK.

Carter, M.S. (2007) N₂O and CH₄ flux measurements at two Danish shrublands. Oral presentation at NEU annual meeting, 5-9 February, Paestum, IT.

Schmidt IK, Beier C. 2007. Jordbund, klima og fremtidens nature. Wilhelm+6 Naturen og dens forvaltning I lyset af klima-forandringerne. Kbh. 9. November 2007.

Schmidt IK and CLIMAITE partners. 2007. Klimaændringer og processer og funktion i terrestriske økosystemer. Abstract and oral presentation. Konference. Klimaændringer og den danske natur - set i et internationalt perspektiv. Naturhistorisk Forening for Jylland. Århus nov, 2007

Emmett, B.A. and Beier, C. (2007) Climate change experiments – going for simplicity or complexity. Presentation at Gordon Conference, July 2007.

Schmidt IK, Beier C. Changes in biogeochemical cycling in response to climate manipulation in two mixed heath/grassland: result from VULCAN and CLIMAITE. Presentation at International Symposium: Soil Processes under Extreme Meteorological Conditions, Bayreuth, February, 2007.

Mikkelsen, T.N.; Beier, C.; Albert, K.; Ro-Poulsen, H., et al. CLIMAITE - a three factor climate change ecosystem manipulation experiment. American Geophysical Union Fall 2007 meeting, San Francisco, CA (US), 10-14 Dec 2007. EOS Trans. AGU (2007) 88 (no.52, Abstract B54B-02).

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Beier, C and Emmett, B. (2007) Experimental manipulation studies – going for simplicity or complexity. Gordon Conference, New London, US, July 2007.

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Pedersen JK, Arndal MF. (2007) Effect of climate change on above- and belowground plant dynamics in a heath land. Fremlagt ved Heathland workshop, Norge 24. juni - 01. juli, 2007.

Arndal MF, Kappel Schmidt I, Beier C. Effects of climate change on root function and below ground carbon input. Fremlagt ved Heathland workshop, Norge 24. juni - 01. juli, 2007.

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Albert K., Ro-Poulsen H., Mikkelsen T.N. (2006) How does prolonged drought affect plant physiological processes? - Focus on the interactions with increased temperature and elevated [CO₂] within the CLIMAITE project. EPRECOT conference May 2006 in Helsingør, Denmark. Abstract and poster

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Beier, C. (2006) Field scale climate change experiments - what about biodiversity? Presentation at 2nd BIORHIZ symposium: 'Rhizosphere Impact on Plant Communities - The Soil Biodiversity Conservation Perspective' og 4th CONSIDER project workshop: 'Global Climate Change and Soil Biodiversity', Reading, 24. August 2006.

Beier C. (2006) Vulnerability of European shrublands to climate change. Lecture at AVEC summerschool, Peyresque, France, 20 september 2006

Beier C. (2006) CLIMAITE – a project on climate change effects on biological processes in terrestrial ecosystems. NoNaKlim symposium "Conservation of Nordic Nature in a Changing Climate", København, 14 oktober 2006

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L.C. Andresen, 2006. Seminar at Terrestrial ecology section, University of Copenhagen.

Petersen, M.B. (2006), CLIMAITE: Ecosystem-atmosphere exchange of carbon in a heath land under future climatic conditions. PhD Workshop: Hvordan formidler du din forskning? 27.–29. januar 2006

Merete Bang Petersen, CLIMAITE: Ecosystem-atmosphere exchange of carbon in a heath land under future climatic conditions. Seminar at Risø National Laboratory, Biosystem Department, March 2006

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Maraldo, “Vulcan – a climate study” Presentation at the PhD workshop “Ecological genomics” in Wageningen, Holland, February 2006

Pilegaard, K (2006). CLIMAITE - a 3-factor climate change ecosystem manipulation study: Set-up and first responses. Seminar at Department of Forest Ecology, University of Helsinki, Finland, 6th October, 2006.

Beier C. (2006) Vulnerability assessment for European shrublands to climate change. Lecture at AVEC summerschool, Peyresque, France, 2nd September 2006.

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Teis N. Mikkelsen (2005): Nationalt global change forsknings initiativ: CLIMAITE. Geografisk Institut, Københavns Universitet. (januar 05).

Teis N. Mikkelsen: CLIMAITE – et nyt dansk forskningsprojekt. Åbent studiekreds arrangement – Orø beboerforening, Orø. (oktober 05).

2004

Beier, C. (2004) Research centre on biological effects of Climate Change. Scientific Friday seminar, Risø, 23rd April, 2004.

Martin Holmstrup: Methods to assess multiple environmental risks. Use of soil invertebrates. EU Workshop om interaktioner mellem klima og forurening, Mallorca, 8-12 november, 2004

Inger K Schmidt: CLIMAITE – et nyt dansk forskningsprojekt vedr. klimaforandringer.
Foredrag, Skov & Landskab, KVL, 10. december 2004.

Posters

Andresen, L.C. Emmett, B. Schmidt, I.K. Beier, C. Tietema, A. Kroel-Dulay, G. De Angelis, P. Estiarte, M. Peñuelas, J. and Duce, P. (2011) Mineralization and litterdecomposition in heathland and grassland ecosystems during climate change across a European moisture and temperature gradient. Poster and abstract. NEU Edinburgh Apr.

Schmidt IK, Beier C, de Angelis P, Duce P, Emmett B, Kroel-Dulay G, Peñuelas J, Spano D, Tietema A. (2009) Impacts of climate change on vulnerable European shrubland ecosystems. Presentation Copenhagen Climate Congress 10-12 March 2009

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Arndal, M. F., Schmidt, I. K., Beier, C. (2007) Root dynamics and below ground carbon input in a changing climate. Poster at "Woody root symposium", Wales, UK. 16.-21. Sep. 2007.

Arndal MF, Kappel Schmidt I, Beier C. (2007) Effects of climate change on root function and below ground carbon input. Poster&Abstract at Rhizosphere2 Conference, Montpellier, Frankrig 26. - 31. august, 2007.

Pedersen JK, Arndal MF. (2007) Effect of climate change on above- and belowground plant dynamics in a heath land. Poster&Abstract at Heathland Workshop, Norge juli, 2007

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Albert K., Ro-Poulsen H., Mikkelsen T.N. (2006) Den biologiske tidsmaskine og planternes fysiologiske respons. Poster & abstract, Copenhagen, BIO-dagen January 2006.

Andresen L. C., Michelsen A., Jonasson S., Ström L., Tracing amino acids through plants and soil with ¹⁵N ¹³C labeled compounds. 5th international conference on applications of stable isotopes in ecology; Belfast 13. – 18. august 2006. Poster and Abstract.

Petersen, MB, Ambus, P 2006. CLIMAITE: Presentation of PhD project: Ecosystem-atmosphere exchange of carbon in a heath land under future climatic conditions. Poster & abstract, EPRECOT, Helsingør, DK, May 2006

Maraldo, K., Schmidt, I.K., Beier, C. & Holmstrup, M.: Effects of warming and enforced summer drought on enchytraeids in a temperate heathland. Poster presented at 7 th International Symposium on Enchytraeidae, Masaryk University, Brno, Czech Republic, May 25-28 2006.

Albert K., Ro-Poulsen H., Mikkelsen T.N. (2006) How does prolonged drought affect plant physiological processes? - Focus on the interactions with increased temperature and elevated [CO₂] within the CLIMAITE project. Poster & abstract, EPRECOT, Helsingør, DK, May 2006

Schmidt IK et al. CLIMAITE – Climate change effects on biological processes in terrestrial ecosystems. Poster & abstract, EPRECOT, Helsingør, DK, May 2006

Beier, C. (2006) CLIMAITE – a biological time machine to investigate multifactor climate change effects in terrestrial ecosystems. Poster presentation at the 5th BIOGEOMON Conference (Santa Cruz, US, 2–5 July 2006).

Albert K., Ro-Poulsen H., Mikkelsen T.N., Michelsen A., Beier C., Jonasson S., Pilegård K., Ambus P., Kappel Schmidt I., Holmstrup M., Primé A., Christensen S. (2006) The Biological Time Machine - Biological responses to multiple environmental and climatic changes. Poster & abstract, Environment and Stress, Ph.d. symposium at KVL October 2006.

Beier, C. (2005) CLIMAITE – a biological time machine. Poster presentation at the 7th International Conference on Acid Deposition Acid Rain 2005 (Prague, Czech Republic, 12–17 June 2005).

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Maraldo, K., Strandberg, B., Christensen, B., & Holmstrup, M.: Combined effects of copper and summer drought on enchytraeids: comparison of laboratory and field studies. Poster presented at SETAC Europe 15th Annual Meeting, The Reason d'Être of environmental toxicology and chemistry, Lille, France, May 22-26, 2005.

PhD and Student reports

Ph.D. degree projects

Title: Ecosystem-atmosphere exchange of carbon in a heathland under future climatic conditions.
 Date: October 2010
 Student: Merete Bang Selsted
 Supervisors: Anders Michelsen, Per Ambus
 Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Enchytraeidae (Oligochaeta) in a changing climate. Ecology and ecophysiology of enchytraeids exposed to climate changes
 Date: April 2009
 Student: Kristine Maraldo
 Supervisors: Martin Holmstrup, Søren Christensen
 Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Plant eco-physiological responses to multiple environmental and climate changes
 Date: March 2009
 Student: Kristian Albert
 Supervisors: Helge Ro-Poulsen, Teis Mikkelsen
 Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Nitrogen cycling in temperate heathland ecosystems and effects of climate change
 Date: May 2008
 Student: Louise C. Andresen
 Supervisors: Anders Michelsen, Sven Jonasson, Claus Beier, Per Ambus
 Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

M.Sc. degree project

Title: Nutrient content in soil, roots and microorganisms, and soil microbial biomass below *C. vulgaris* and *D.flexuosa*: seasonal variation and effects of nutrient addition
Date: 2006
Student: Pia Lund Nielsen
Supervisors: Anders Michelsen, Inger Kappel Schmidt
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: The influence of nitrogen and phosphorus on phenology, growth and nutrient content in *D.flexuosa* and *C. vulgaris*
Date: 2006
Student: Jane Kongstad Pedersen
Supervisors: Anders Michelsen, Sven Jonasson
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: The effect of ants, organic matter and manipulation of precipitation on CO₂ fluxes in a heath ecosystem
Date: Aug. 2008
Student: Lasse Kjems
Supervisors: Anders Michelsen, Per Ambus
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Bachelor degree projects

Title: Respiration in *Calluna vulgaris* and *Deschampsia flexuosa* in relation to climate change
Date: June 2008
Students: Julie Hirsch & Linda Agerbo Jensen
Supervisors: Helge Ro-Poulsen, Teis Mikkelsen
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Effect of enhanced CO₂, temperature, drought and combinations on the concentration of condensed tannin in leaves and fine roots in *Calluna vulgaris* and *Deschampsia flexuosa*
Date: Dec. 2007
Student: Rune Juelsborg Karsten
Supervisors: Anders Michelsen
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Global change affected eco-physiological winter processes in *C.vulgaris*
Date: 2007
Student: Kristine S.Boesgård and Kristina Louise Mathiesen
Supervisors: Helge Ro-Poulsen, Anders Michelsen, Kristian Albert
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Photosynthesis and respiration in relation to variations in precipitation in a heath ecosystem.
Date: June 2007
Student: Jakob Juul
Supervisors: Anders Michelsen, Per Ambus
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Effects of CO₂, drought and temperature on *Deschampsia flexuosa* in a FACE-experiment.
Date: June 2009
Student: Simon Lindegaard
Supervisors: Helge Ro-Poulsen, Kristian Albert
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Investigation of the response of *Deschampsia flexuosa* to water stress
Date: June 2009
Student: Thomas Bang
Supervisors: Helge Ro-Poulsen, Kristian Albert
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Other projects

Title: The effect of drought and enhanced water supply on microbial C, N and P, inorganic N and P, and plant biomass.
Date: June 2007
Student: Merian Skouw-Rasmussen
Supervisors: Anders Michelsen
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology

Title: Global change effects on plant senescence.
Date: 2006
Student: Christine Aagaard
Supervisors: Helge Ro-Poulsen and Kristian Albert
Institution: University of Copenhagen, Department of Biology, Terrestrial Ecology Section, Physiological Ecology